



ENVIRONMENTAL CONSULTING • GEOTECHNICAL ENGINEERING • CONSTRUCTION MATERIALS TESTING

**PROJECT MANUAL  
FOR  
DEMOLITION OF THE  
FORMER AMERICAN TISSUE MILL  
AUGUSTA, MAINE**

Prepared for:

The City of Augusta  
City Center  
16 Cony Street  
Augusta, Maine 04330-5298



Prepared by:

SUMMIT ENVIRONMENTAL CONSULTANTS, INC.,  
640 Main Street  
Lewiston, Maine 04240

Project Number 16647  
January 9, 2009

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1 Industrial Way, Suite 7 • Portland, ME 04103  
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## INVITATION TO BID

Sealed bids for the implementation of the Former American Tissue Factory Demolition Project for the City of Augusta (the City) will be received by the City at 16 Cony Street, Augusta, Maine 04330-5298, attention William Bridgeo, City Manager, up until ***2:00 p.m. on March 2, 2009, no bids received after the deadline will be accepted.*** All initially capitalized terms used in this Invitation to Bid and other Contract Documents that are defined in the Instructions to Bidders or the General Conditions attached as part of these Contract Documents shall have the meanings set forth in those instructions and General Conditions.

The Work described herein includes all mobilization/demobilization, necessary notifications and permitting, erosion and sediment controls, removal and proper disposal of hazardous wastes/materials, special wastes (i.e. asbestos, universal waste), building demolition to ground level, granular backfill and site cleanup/restoration. The project is located in the City of Augusta, Maine.

One bid form with the required supplemental bid items is provided herein, and includes all Work associated with the Former American Tissue Factory Demolition Project. Bidders shall complete and submit the bid form and supplemental bid items. The Work will be paid in accordance with the bid prices offered by the Contractor in the Bid Form.

Bidders are required to attend a mandatory pre-bid conference to discuss the details of the project. The pre-bid conference will be held at ***10:00 a.m. on January 30, 2009*** at the Project Site, 54 Maple Street, Augusta, Maine, and a subsequent site tour. If requested, potential bidders will be provided directions to the meeting location and site. Questions that arise during the bidding process must be directed to Summit Environmental Consultants, Inc. (Summit), 640 Main Street, Lewiston, Maine 04240, Attention: Mr. Jim Bouquet, P.E. (telephone: 207-795-6009). All questions must be made in writing and answers will be in the form of a written addendum, which will be provided to all potential Bidders. All assumptions made in the Bid must be clearly described. Should a Bidder find any omission or discrepancy in this Invitation to Bid or be in doubt as to the meaning of any provisions of this Bid package, it must promptly notify Summit in writing no later than five (5) business days prior to the specified Bid closing date. No Bidder may claim any time after submission of the Bid that there was any misunderstanding of the terms and conditions of the Contract for this Work.

A 5 percent Bid Bond will be required and the selected Contractor will provide 100 percent Performance and Payment Bonds.

All Bids shall remain valid and in full effect for a period of not less than 90 days after the submitted date of receipt.

The City of Augusta (herein referred to as the "Owner") will award the contract to the lowest responsible Bidder, or otherwise as the Owner shall deem appropriate and advantageous to Owner's interests. The successful Bidder will be required to execute the Contract, procure bonds and to file insurance certificates within five (5) days after the Formal Notice of Award, and before the Contract is issued.

The Owner reserves the right to waive informalities in the bidding process and reject any or all bids not conforming to the intent and purpose of the Contract Documents, and to postpone award of the Contract for a period not to exceed 90 days from the bid opening date.

Bidders must use the prepared Bid Forms that are contained in the Contract Documents. Two copies of each bid will be required. Each individual Bid must include supplemental items required on the bid form and in the Specifications, and must be enclosed in a sealed envelope, marked and addressed as follows:

**City of Augusta  
City Center  
16 Cony Street  
Augusta, Maine 04330-5298**

**Attention: William Bridgeo  
City Manager**

**BID FOR: Former American Tissue Demolition Project  
Bid No. 209047**

**DO NOT OPEN UNTIL March 2, 2009 at 2:00 p.m.**

A public bid opening will be held at 2:00 pm on March 2, 2009 at the City of Augusta Municipal Office at 16 Cony Street in the office of the City Manager.

**BID FORM**  
**FORMER AMERICAN TISSUE MILL DEMOLITION**

Bid of \_\_\_\_\_ (hereinafter referred to as "Bidder"), organized and existing under the laws of the State of \_\_\_\_\_ doing business as \_\_\_\_\_ (Insert "an individual", "a corporation", "a partnership", "a limited partnership", "a joint venture", "a limited liability company", or "a limited liability partnership" as applicable.)

To: William Bridgeo  
City Manager  
City of Augusta  
City Center  
16 Cony Street  
Augusta, Maine 04330-5298

In compliance with your Instruction To Bidders, the Bidder hereby proposes to perform all work for the Former American Tissue Demolition Project at the Former American Tissue Factory, Augusta Maine, in strict accordance with the Construction Drawings, Contract Documents and Technical Specifications, within the time set forth in the Bidder's Construction Schedule, and for the price stated in the Bid Schedule herein.

By submission of this Bid, each Bidder certifies, and in the case of a joint Bid each party thereto certifies as to its own organization, that this Bid has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this Bid with any other Bidder or with any competitor.

The Bidder hereby agrees to commence work under this Contract on or before a date to be specified in the Notice To Proceed and to fully complete the Work no later than August 31, 2009.

The awarding of the Bid to the Contractor will be based on this Bid.

The Bidder acknowledges receipt of the following Addenda:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Pursuant to and in compliance with the Invitation to Bid and the Instructions to Bidder relating hereto, the undersigned as a Bidder proposes and agrees to furnish and complete at the site the services specified in the Contract Documents, in the manner therein prescribed and in accordance with all addenda issued by the Owner prior to the opening of Bids for the total lump sum cost of:

\_\_\_\_\_ Dollars (\$ \_\_\_\_\_)  
Write Total Bid Price In Words

For the purposes of establishing a breakdown of bid price for the work, the quantities of various construction activities, materials, supplies or equipment to be furnished/performed by the Contractor are estimated and provided on the enclosed Bid Breakdown Table. The Form as completed by the Contractor shall establish unit prices for payment applications and additional Work (or credit) as required. If applicable, provide a narrative, on separate pages, describing any proposed alternate to the Work as described in these Contract Documents, Technical Specifications, and Construction Drawings.



**BID FORM**  
**FORMER AMERICAN TISSUE MILL DEMOLITION**

**SCHEDULE OF ALTERNATIVES:**

**Deduct Alternate**

<b><u>No.</u></b>	<b><u>Description</u></b>	<b><u>Lump Sum Cost</u></b>
1.	Disposal of Wastewater Treatment Plant Liquid at the Local POTW:	\$ _____
2.	Disposal of Wastewater Treatment Plant Sludge at Statler Landfill:	\$ _____
3.	Disposal of Non-Friable ACM at Statler Landfill:	\$ _____
4.	Furnish, Install and Remove Temporary Chain Link Fence:	\$ _____

If applicable, provide a narrative, on separate pages, describing any proposed alternate to the Work as described in these Contract Documents, Technical Specifications, and Construction Drawings.

**List of Subcontractors**

The Bidder further proposes that the following firms or businesses will be awarded subcontracts for the portions of the Work identified in the event that the Bidder is awarded the Contract:

<b>NAME</b>	<b>ADDRESS</b>	<b>ITEM DESCRIPTION</b>
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____

The employment of Subcontractors or Subtrades other than those listed above will not be permitted without written approval from the OWNER. Information indicating how the Subcontractors or Subtrades, listed above, qualify in experience and background may be requested before award of the Contract.

List of Equipment: The Bidder shall submit a list of the key construction equipment, with hourly labor and equipment rates, which will be applied and/or available to the Bidder during the construction activities. The Bidder shall be bound to these rates for the duration of the Contract.

Construction Schedule: The Bidder shall submit, with their bid, a construction schedule in accordance with the General Conditions (paragraph 2.6.1).

Staffing: The Bidder shall provide an Organizational Chart and resumes for each of the key personnel involved in the project.

**BID FORM**  
**FORMER AMERICAN TISSUE MILL DEMOLITION**

Communications concerning this Bid shall be addressed to:

\_\_\_\_\_  
(NAME)

\_\_\_\_\_  
(ADDRESS)

Telephone Number: \_\_\_\_\_

The terms used in the Bid which are defined in the General Conditions of the Construction Contract, included as part of the Contract Documents, have the meaning assigned to them in the General Conditions.

SUBMITTED on \_\_\_\_\_, \_\_\_\_\_.

If BIDDER is:

An Individual

By \_\_\_\_\_  
(INDIVIDUAL NAME)

Business Address: \_\_\_\_\_  
\_\_\_\_\_

A Partnership

By \_\_\_\_\_  
(FIRM NAME)

\_\_\_\_\_  
(STATE OF ORGANIZATION)

\_\_\_\_\_  
(GENERAL PARTNER)

Business Address: \_\_\_\_\_

A Corporation

By \_\_\_\_\_  
(CORPORATION NAME)

\_\_\_\_\_  
(STATE OF INCORPORATION)

By \_\_\_\_\_  
(NAME OF PERSON AUTHORIZED TO SIGN)

\_\_\_\_\_  
(TITLE)

**BID FORM**  
**FORMER AMERICAN TISSUE MILL DEMOLITION**

ATTEST

\_\_\_\_\_  
(NOTARY PUBLIC)

sworn and subscribed before me, this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.  
My Commission Expires: \_\_\_\_\_

Business Address: \_\_\_\_\_  
\_\_\_\_\_

Telephone Number: \_\_\_\_\_

**BID FORM**  
**FORMER AMERICAN TISSUE MILL DEMOLITION**

**BID BREAKDOWN TABLE**

		Lump Sum Price of Bid Item
ITEM 1	For Mobilization/Demobilization	\$ _____
ITEM 2	For Erosion and Sediment Control	\$ _____
ITEM 3	For Asbestos Removal/Disposal	\$ _____
ITEM 4	For Removal and Disposal of Wastewater Treatment Plant Liquid	\$ _____
ITEM 5	For Removal and Disposal of Wastewater Treatment Plant Sludge	\$ _____
ITEM 6	For Identified Hazardous Waste, PCB and Universal Waste Removal/Disposal	\$ _____
ITEM 7	For Removal and Disposal of Liquids	\$ _____
ITEM 8	For Draining, Content Disposal/Recycling, Cleaning, and Sealing of Number 6 Oil Piping	\$ _____
ITEM 9	For Removal/Demolition of Tanks, Equipment, Materials	\$ _____
ITEM 10	For Building and Foundation Demolition/Disposal	\$ _____
ITEM 11	For Backfilling	\$ _____
ITEM 12	For Site Restoration	\$ _____
ITEM 13	For Site Security and Fencing	\$ _____

**BID ALLOCATION #1**

For Non-Identified Hazardous Waste Liquid and Residual Solids Removal/Disposal	\$ <u>25,000.00</u>
--	---------------------

<b>TOTAL - BID BREAKDOWN (Items 1 through 13, inclusive)</b>	<b>\$ _____</b>
--	-----------------

**AGREEMENT  
BETWEEN OWNER AND CONTRACTOR FOR  
CONSTRUCTION CONTRACT**

THIS AGREEMENT is by and between The City of Augusta, Maine

(Owner) and \_\_\_\_\_

(Contractor).

Owner and Contractor, in consideration of the mutual covenants set forth herein, agree as follows:

**ARTICLE 1 - WORK**

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

*All mobilization/demobilization, necessary notifications and permitting, erosion and sediment controls, removal and proper disposal of hazardous wastes/materials, special wastes (i.e. asbestos, universal waste), building demolition to ground level, granular backfill and site cleanup/restoration.*

**ARTICLE 2 - THE PROJECT**

2.01 The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows:

*Former American Tissue Mill Demolition*

**ARTICLE 3 - ENGINEER**

3.01

Summit Environmental Consultants, Inc.

(Engineer), who is to act as Owner's representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

**ARTICLE 4 - CONTRACT TIMES**

4.01 Time of the Essence

A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 Dates for Completion and Final Payment

A. The Work will be completed and ready for final payment in accordance with the General Conditions on or before \_\_\_\_\_.

B. All Work shall be complete within \_\_\_\_\_ calendar weeks of Contractor mobilization to the Site.

4.03 Liquidated Damages

A. Contractor and Owner recognize that time is of the essence of this Agreement and that Owner will suffer financial loss if the Work is not completed within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty), Contractor shall

pay Owner \$\_\_\_\_\_ for each day that expires after the time specified in Paragraph 4.02 for completion and readiness for final payment until the Work is completed and ready for final payment.

## ARTICLE 5 - CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to Paragraphs 5.01.A, 5.01.B, and 5.01.C below:

A. For all Work other than Unit Price Work, a Lump Sum of:

<hr/>	(\$ _____)
(words)	(numerals)

B. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

C. Work consists of the Base Bid and Deduct Alternate No. \_\_\_\_\_

## ARTICLE 6 - PAYMENT PROCEDURES

### 6.01 Submittal and Processing of Payments

A. Contractor shall submit Applications for Payment in accordance with Article 12 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

### 6.02 Progress Payments; Retainage

A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the 30th day of each month during performance of the Work as provided in Paragraphs 6.02.A.1 and 6.02.A.2 below.

1. All such payments will be measured by the Schedule of Values established as provided in Paragraph 2.6.3 of the General Conditions.
2. Prior to Completion, progress payments will be made in an amount equal to 90 percent of Work completed, in each case, less the aggregate of payments previously made and less such amounts as Engineer may determine or Owner may withhold, including but not limited to liquidated damages, in accordance with Article 12 of the General Conditions.

### 6.03 Final Payment

A. Upon final completion and acceptance of the Work in accordance with Article 12 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Article 12.

## ARTICLE 7 - INTEREST

7.01 All moneys not paid when due as provided in Article 12 of the General Conditions shall bear interest at the rate of 4 percent per annum.

## ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

8.01 In order to induce Owner to enter into this Agreement Contractor makes the following representations:

A. Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.

B. Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Contractor is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Contractor has carefully studied all: (1) reports and drawings of a Hazardous Environmental Condition, if any, at the Site which has been identified in the Supplementary Conditions.

E. Contractor has obtained and carefully studied (or assumes responsibility for doing so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents, and safety precautions and programs incident thereto.

F. Contractor does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.

G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.

H. Contractor has correlated the information known to Contractor, information and observations obtained from visits to the Site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.

I. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

J. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

K. Contractor shall obtain all necessary permits to complete the scope of work described herein unless said permits had previously been obtained at the sole discretion of the City of Augusta or its Engineer.

## ARTICLE 9 - CONTRACT DOCUMENTS

### 9.01 Contents

A. The Contract Documents consist of the following:

1. This Agreement.
2. Performance bond.
3. Payment bond.
4. General Conditions (pages \_\_\_\_\_ to \_\_\_\_\_, inclusive).
5. Supplementary Conditions (pages \_\_\_\_\_ to \_\_\_\_\_, inclusive).
6. Specifications as listed in the Technical Specifications Table of Contents of the Project Manual dated \_\_\_\_\_.
7. Drawings consisting of \_\_\_\_\_ sheet with each sheet bearing the following general title: \_\_\_\_\_.
8. Addenda Number \_\_\_\_\_.
9. Exhibits to this Agreement (enumerated as follows):
  - a. Contractor's Bid (pages \_\_\_\_\_ to \_\_\_\_\_, inclusive).

b. Schedule of Activities (Submitted with Bid)

c. \_\_\_\_\_ Equipment and Labor Rates (Submitted with Bid).

10. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:

a. Notice to Proceed.

b. Work Change Directives.

c. Change Order(s).

B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).

C. There are no Contract Documents other than those listed above in this Article 9.

D. The Contract Documents may only be amended, modified, or supplemented as provided in Paragraph 3.4 of the General Conditions.

## ARTICLE 10 - MISCELLANEOUS

### 10.01 Terms

A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

### 10.02 Assignment of Contract

A. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of both parties; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

### 10.03 Successors and Assigns

A. Owner and Contractor each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

### 10.04 Severability

A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

## ARTICLE 11 – DISPUTE RESOLUTION

11.01 Any dispute relating to the Terms, Conditions and Obligations of the parties with regard to this Agreement and the Contract documents shall be resolved in a Kennebec County Superior Court and apply Maine Law.



IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement in duplicate. One counterpart each has been delivered to Owner and Contractor. All portions of the Contract Documents have been signed or identified by Owner and Contractor or on their behalf.

This Agreement will be effective on \_\_\_\_\_, 2008 (which is the Effective Date of the Agreement).

OWNER:

CONTRACTOR:

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Attest: \_\_\_\_\_

Attest: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Address for giving notices:

Address for giving notices:

CORPORATE SEAL

**FORMER AMERICAN TISSUE MILL DEMOLITION**

**GENERAL CONDITIONS  
OF THE  
CONSTRUCTION CONTRACT**

Prepared for:

City of Augusta  
City Center  
16 Cony Street  
Augusta, Maine 04330-5298

Prepared by:

Summit Environmental Consultants, Inc.  
640 Main Street  
Lewiston, Maine 04240  
(207) 795-6009

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## ARTICLE I - DEFINITIONS

Wherever used in these General Conditions or in the other Contract Documents the following terms have the meanings indicated which are applicable to both the singular and plural thereof. Capitalized terms used herein and not otherwise defined shall have the meanings attributed to them in these General Conditions.

**Addenda** - Written or graphic instruments issued by the ENGINEER prior to the opening of Bids which clarify, correct or change the bidding documents or the Contract Documents.

**Agreement** - The Construction Contract between the OWNER and the CONTRACTOR covering the Work to be performed; other Contract Documents are attached to the Agreement and made a part thereof as provided therein.

**Application for Payment** - The form accepted by OWNER and ENGINEER which is to be used by CONTRACTOR in requesting progress or final payments and which is to include such supporting documentation as is required by the Contract Documents.

**Bid** - The offer or proposal of the bidder submitted on the prescribed form setting forth the prices for the Work to be performed, including all materials submitted with that offer or proposal.

**Bonds** - Bid and Performance and Payment bonds and other instruments of security.

**Change Order** - A document approved by OWNER, which is signed by CONTRACTOR and ENGINEER, and which authorizes an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Time, issued on or after the Effective Date of the Agreement.

**Contract Documents** - The Agreement, Addenda (which pertain to the Contract Documents), the Scope of Work Documents, Invitation to Bid, Instructions to Bidders, CONTRACTOR's Bid (including any modifications, addenda, documentation accompanying the Bid, and post-Bid documentation submitted prior to the Notice of Award), Bid Surety or Bid Bond, Performance and Payment Bond, Technical Specifications, Design Drawings, the Supplemental Conditions of the Construction Contract, and these General Conditions, together with all amendments, modifications, and supplements issued pursuant to Articles 3.4 and 3.5 of these General Conditions on or after the Effective Date of the Agreement.

**Contract Price** - The moneys payable by OWNER to CONTRACTOR under the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 7.8 in the case of Unit Price Work).

**Contract Time** - The number of days provided in the final project schedule as identified pursuant to Paragraph 2.8.

**CONTRACTOR** - The person, firm or corporation with whom OWNER has entered into the Agreement to perform the specified Work.

**Default** - Failure of the CONTRACTOR to comply with any provisions of the Agreement, including the General and Supplemental Conditions, Technical Specifications, Construction Drawings, terms and conditions of the procurement or other supporting documents.

**Defective** - An adjective which when modifying the Work refers to Work that is unsatisfactory, faulty or deficient, that does not conform to the Contract Documents, or that does not meet the requirements of any

inspection, reference standard, test or approval referred to in the Contract Documents.

**Drawings** - The drawings which show the character and scope of the Work to be performed and which have been prepared or approved by ENGINEER and are referred to in the Contract Documents.

**Effective Date of the Agreement** - The date indicated in the Agreement on which it becomes effective, but if no such date is indicated it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

**ENGINEER** – Summit Environmental Consultants, Inc.

**Field Order** - A written order issued by ENGINEER which orders minor changes in the Work in accordance with Paragraph 7.3 but which does not involve a change in the Contract Price or the Contract Time.

**Laws and Regulations; Laws or Regulations** - Laws, rules, regulations, ordinances, codes, and/or orders.

**MEDEP** – Maine Department of Environmental Protection

**Notice of Award** - The written notice by the ENGINEER to the apparent successful BIDDER (with a copy to OWNER) stating that upon compliance by the apparent successful BIDDER with the conditions precedent enumerated therein, within the time specified, OWNER will sign and deliver the Agreement.

**Notice to Proceed** - A written notice given by ENGINEER to CONTRACTOR (with a copy to OWNER) fixing the date on which the Contract Time will commence and on which CONTRACTOR shall start to perform CONTRACTOR's obligations under the Contract Documents.

**OWNER** – City of Augusta

**Project** - The total construction of which the Work to be provided under the Contract Documents may be the whole, or a part as indicated elsewhere in the Contract Documents.

**Scope of Work Documents** – The Project Manual, Construction Drawings and all appendices, attachments, modifications, or supplements to each of the foregoing.

**Shop Drawings** - All drawings, diagrams, illustrations, schedules, and other data which are specifically prepared by or for CONTRACTOR to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams, and other information prepared by a Supplier and submitted by CONTRACTOR to illustrate material or equipment for some portion of the Work.

**Site** – The lands upon which the Work is to be Performed, rights-of-way, and easements for access therefore, and such other lands as are or may be designated by the OWNER or the ENGINEER for the use of the Contractor in connection with the Performance of the Work.

**Specifications** - Those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards, and workmanship as applied to the Work and certain administrative details applicable thereto.

**Subcontractor** - An individual, firm or corporation having a direct contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the Work at the Site.

**Substantial Completion** - The point to which the Work (or a specified part thereof) has progressed where, in the opinion of the ENGINEER, as evidenced by ENGINEER's definitive certificate of Substantial Completion, it is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it is intended; or if there be no such certificate issued, when final payment is due in accordance with Paragraph 12.10. The terms "substantially complete" and "substantially completed" as applied to any Work refer to Substantial Completion thereon.

**Supplier** - A manufacturer, fabricator, distributor, materialman, or vendor, other than a Subcontractor, providing equipment or materials for the Work.

**Underground Facilities** - All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities, improvements, or attachments, and any encasements containing such facilities, improvements, or attachments which have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage, and drainage removal, traffic or other control systems or water.

**Unit Price Work** - Work to be paid for on the basis of unit prices.

**Work** - The entire completed construction, as well as all separately identifiable parts thereof, required to be furnished under the Contract Documents. Work is the result of performing services, furnishing labor and furnishing and incorporating materials and equipment into the construction, all as required by the Contract Documents.

**Work Directive Change** - A written directive to CONTRACTOR, issued on or after the Effective Date of the Agreement and signed by the ENGINEER, ordering an addition, deletion or revision in the Work, or responding to differing or unforeseen physical conditions under which the Work is to be performed as provided in Paragraph 3.4 or 3.5 or to emergencies under Paragraph 6.19. A Work Directive Change may not change the Contract Price or the Contract Time, but is evidence that the parties expect that the change directed or documented by a Work Directive Change will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Time as provided in Article 8.

**Written Amendment** - A written amendment of the Contract Documents, signed by OWNER and CONTRACTOR on or after the Effective Date of the Agreement and normally dealing with the non-engineering or non-technical rather than strictly Work-related aspects of the Contract Documents.

## **ARTICLE 2 - PRELIMINARY MATTERS**

### **Delivery of Bond:**

2.1 When CONTRACTOR delivers the executed Agreement to OWNER, CONTRACTOR shall also deliver to OWNER such Bond as CONTRACTOR may be required to furnish in accordance with Paragraph 5.1.



**Copies of Documents:**

2.2 ENGINEER shall furnish to CONTRACTOR as many copies of the Contract Documents as are reasonably necessary for the execution of the Work. Additional copies will be furnished, upon request, at the cost of reproduction.

**Commencement of Contract Time; Notice to Proceed:**

2.3 The Contract Time will commence on the date a Notice to Proceed is given. A Notice to Proceed may be given at any time after the Effective Date of the Agreement.

**Starting the Project:**

2.4 CONTRACTOR shall start to perform the Work on the date when the Contract Time commences, but no Work shall be done at the Site prior to the date on which the Contract Time commences.

**Before Starting Construction:**

2.5 Before undertaking each part of the Work, CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. CONTRACTOR shall promptly report in writing to ENGINEER any conflict, error, ambiguity, or discrepancy which CONTRACTOR may discover and shall obtain a written interpretation or clarification from ENGINEER before proceeding with any Work affected thereby; however, CONTRACTOR shall not be liable to ENGINEER for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents, unless CONTRACTOR had actual knowledge thereof or should reasonably have known thereof.

2.6 Within five (5) days after the Notice of Award of the Agreement (unless otherwise specified), CONTRACTOR shall submit to the ENGINEER for review the following documentation:

- 2.6.1 an estimated project schedule and accompanying narrative (based on the CONTRACTOR's current knowledge of Site conditions and other constraints) which includes estimates of the time required for mobilization, Site preparation, production rates associated with each task listed on the schedule, list of major milestones, and of the time required for Site restoration, demobilization, and submission of final documentation package;
- 2.6.2 a preliminary schedule of Shop Drawing submissions;
- 2.6.3 a preliminary schedule of values for all of the Work which shall include quantities and prices of items aggregating the Contract Price and will subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. Such prices will include an appropriate allocation of overhead and profit applicable to each item of Work which will be confirmed in writing by CONTRACTOR at the time of submission.

**Pre-construction Conference:**

2.7 Within five (5) days after the Effective Date of the Agreement, but before CONTRACTOR starts the Work at the Site, ENGINEER may require CONTRACTOR and others as appropriate to attend a

conference to discuss the schedules referred to in Paragraph 2.8, to discuss procedures for handling Shop Drawings and other submittals and for processing Applications for Payment, and to establish a working understanding among the parties as to the Work.

**Finalizing Schedules:**

2.8 At least five (5) days after the Effective Date of the Agreement, ENGINEER may require CONTRACTOR and others as appropriate to attend a conference to finalize the schedules submitted in accordance with Paragraph 2.8. The finalized progress schedule must be acceptable to ENGINEER as providing an orderly progression of the Work to completion within the Contract Time, but such acceptance will neither impose on ENGINEER responsibility for the progress or scheduling of the Work nor relieve CONTRACTOR from full responsibility therefore. The finalized schedule of Shop Drawing submissions must be acceptable to ENGINEER as providing a workable arrangement for processing the submissions. The finalized schedule of values must be acceptable to ENGINEER as to form and substance.

**ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE**

**Intent**

3.1 The Contract Documents comprise the entire agreement between OWNER and CONTRACTOR concerning the Work. The Contract Documents are complementary; what is called for by one is as binding as if called for by all. The Contract Documents shall be construed in accordance with the laws of the State of Maine.

3.2 The Contract Documents are intended to describe a functionally-complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any Work, materials or equipment that may reasonably be inferred from the Contract Documents, as being required to produce the intended result shall be supplied whether or not specifically called for. When words which have a well-known technical or trade meaning are used to describe Work, materials or equipment such words shall be interpreted in accordance with that meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the Laws or Regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code or Laws or Regulations in effect at the time of opening of Bids, except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall be effective to change the duties and responsibilities of OWNER, CONTRACTOR, or ENGINEER or any of their consultants, agents or employees from those set forth in the Contract Documents. Clarifications and interpretations of the Contract Documents shall be issued by ENGINEER as provided in Paragraph 7.2.

3.3 If during the performance of the Work, CONTRACTOR finds a conflict, error or discrepancy in the Contract Documents, CONTRACTOR shall so report to ENGINEER in writing at once and before proceeding with the Work affected thereby shall obtain a written interpretation or clarification from ENGINEER; however, CONTRACTOR shall not be liable to ENGINEER for failure to report any conflict, error or discrepancy in the Contract Documents unless CONTRACTOR had actual knowledge thereof or should reasonably have known thereof. In the event the Contract Documents conflict, the Agreement shall take precedence over the General Conditions, and each of the foregoing shall take precedence over the Technical Specifications.

**Amending and Supplementing Contract Documents:**

3.4 The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof only in one or more of the following ways or as provided in Paragraph 3.5:

- 3.4.1 a formal Written Amendment,
- 3.4.2 a Change Order (pursuant to paragraph 8.4), or
- 3.4.3 a Work Directive Change (pursuant to paragraph 8.1).

As indicated in Paragraphs 9.2 and 10.1, Contract Price and Contract Time may only be changed by a Change Order or a Written Amendment.

3.5 In addition, the requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized in one or more of the following ways:

- 3.5.1 a Field Order (pursuant to paragraph 7.3).
- 3.5.2 ENGINEER's written approval of a Shop Drawing or sample (pursuant to paragraphs 6.22 and 6.23), or
- 3.5.3 ENGINEER's written interpretation or clarification (pursuant to paragraph 7.2).

**Reuse of Documents:**

3.6 Neither CONTRACTOR nor any Subcontractor or Supplier or other person or organization performing or furnishing any of the Work under a direct or indirect contract with the OWNER, CONTRACTOR, Subcontractor or Supplier shall have or acquire any title to or ownership rights in any of the Drawings, Technical Specifications or other documents (or copies of any thereof) prepared by or bearing the seal of ENGINEER; and they shall not reuse any of them on extensions of the Project or any other project without written consent of OWNER and specific written verification or adaptation by ENGINEER.

**ARTICLE 4 - AVAILABILITY OF LANDS; PHYSICAL CONDITIONS; REFERENCE POINTS**

**Availability of Lands:**

4.1 OWNER shall furnish, with the assistance of the ENGINEER and/or CONTRACTOR as may be requested under Paragraph 2.1.6 of the Agreement, the lands upon which the Work is to be Performed, rights-of-way, and easements for access thereto, and such other lands which are designated for the use of CONTRACTOR. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for, unless otherwise provided in the Contract Documents. If CONTRACTOR believes that any delay in OWNER furnishing these lands, rights-of-way or easements entitles CONTRACTOR to an extension of the Contract Time, CONTRACTOR may make a claim therefore as provided in paragraph 10.1. CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

**Physical Conditions:**

4.2 Explorations and Reports: Reference is made to the Scope of Work Documents for identification of those reports of explorations and tests of subsurface conditions that have been conducted at the Site. CONTRACTOR shall have full responsibility with respect to subsurface conditions at the Site.

4.3 Existing Structures: Reference is made to the Scope of Work Documents for identification of those drawings of physical conditions in or relating to existing surface and subsurface structures (except underground facilities referred to in Paragraph 4.4) which are at or contiguous to the Site. CONTRACTOR shall have full responsibility with respect to physical conditions in or relating to such structures.

**Physical Conditions - Underground Facilities:**

4.4 Shown or Indicated: The information and data shown or indicated in the Scope of Work Documents with respect to existing underground facilities at or contiguous to the Site are based on information and data furnished to OWNER or ENGINEER by the owners of such underground facilities or by others. Unless it is otherwise expressly provided in the Technical Specifications:

- 4.4.1 OWNER and ENGINEER shall not be responsible for the accuracy or completeness of any such information or data; and,
- 4.4.2 CONTRACTOR shall have full responsibility for reviewing and checking all such information and data for locating all underground facilities shown or indicated in the Scope of Work Documents, for coordination of the Work with the owners of such underground facilities during construction, for the safety and protection thereof as provided in Paragraph 6.17 and repairing any damage thereto resulting from the Work, the cost of all of which will be considered as having been included in the Contract Price.
- 4.4.3 If an underground facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated in the Scope of Work Documents and which CONTRACTOR could not reasonably have been expected to be aware of, CONTRACTOR shall, promptly after becoming aware thereof and before performing any Work affected thereby (except in an emergency as permitted by Paragraph 6.19), identify the owner of such underground facility and give written notice thereof to that owner and to OWNER and ENGINEER. ENGINEER will promptly review the underground facility to determine the extent to which the Contract Documents should be modified to reflect and document the consequences of the existence of the underground facility, and the Contract Documents will be amended or supplemented to the extent necessary. During such time, CONTRACTOR shall be responsible for the safety and protection of such underground facility as provided in Paragraph 6.17. CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, to the extent that they are necessary and attributable to the existence of any underground facility that was not shown or indicated in the Contract Documents and which CONTRACTOR could not reasonably have been expected to be aware of, provided that such increase or extension shall not diminish CONTRACTOR's obligations under Section 7 of the Agreement. If the parties are unable to agree as to the amount or length thereof, the dispute shall be

resolved in accordance with the terms of Section 18 of the Agreement.

## **ARTICLE 5 - BONDS AND INSURANCE; INDEMNIFICATION**

### **Performance and Payment Bond:**

5.1 CONTRACTOR shall furnish a Performance and Payment Bond in an amount at least equal to the Contract Price, as security for the faithful performance and payment of all CONTRACTOR's obligations under the Contract Documents. This Bond shall remain in effect, and shall permit claims to be made thereunder, until at least one (1) year following notification by OWNER that the Project has been fully performed, except as otherwise provided by Laws or Regulations or by the Contract Documents. Such Bond shall be in the forms prescribed by Laws or Regulations (including, but not limited to, the Maine Public Works Surety Bond Law of 1971, 14 M.R.S.A. § 871) or by the Contract Documents and be executed by such sureties having a Bests Key Rating Guide General Policyholders rating of "A+" and Financial Category of "Class X" or better and as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the U.S. Treasury Department, Bureau of Government Financial Operation. All Bonds signed by an agent must be accompanied by a certified copy of that agent's authority to act.

5.2 If the surety on any Bond furnished by CONTRACTOR becomes a debtor in a bankruptcy, receivership, dissolution, insolvency, or similar proceeding, becomes insolvent in any sense, its right to do business is terminated in the State Maine, or it ceases to meet the requirements of paragraph 5.1, CONTRACTOR shall within five (5) days thereafter (and whether or not otherwise demanded by OWNER or ENGINEER) substitute another Bond and Surety, both of which must be acceptable to OWNER and to ENGINEER.

5.3 Any failure to invoke, or delay in invoking, by OWNER, ENGINEER, or any of their respective officers, directors, contractors, attorneys, agents or employees, any of their rights under the Performance or Payment Bond does not constitute a waiver of any of the rights of OWNER or ENGINEER under the Contract Documents regarding any defects in the Work and any damage to other work, persons or property resulting there from.

### **Delivery of Certificates of Insurance:**

5.4 All policies, bonds and certificates required under this Article 5 shall be in such form as the recipient of the same may reasonably require. Before starting the work, CONTRACTOR will file with OWNER and ENGINEER certificates of such insurance, acceptable to OWNER and ENGINEER. All of the policies of insurance so required to be purchased and maintained (and all certificates or other evidence thereof) shall contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least thirty (30) days' prior written notice has been given to OWNER and ENGINEER by certified mail. Within five (5) days of Notice of Award, CONTRACTOR shall deliver to OWNER, with a copy to ENGINEER, insurance certificates (and other evidence of insurance requested by OWNER or ENGINEER) which CONTRACTOR is required to purchase pursuant to this article. If OWNER has any objection to the coverage afforded by or other provisions of the insurance required to be purchased and maintained by CONTRACTOR in accordance with this Article 5 on the basis of its not complying with the Contract Documents, OWNER shall notify CONTRACTOR in writing thereof within ten (10) days of the date of delivery of such certificates to OWNER and

ENGINEER. CONTRACTOR shall provide to OWNER such additional information with respect to insurance provided by it as OWNER may reasonably request. Failure by OWNER to give any such notice of objection within the time provided shall constitute acceptance of such insurance purchased by CONTRACTOR as complying with the Contract Documents. CONTRACTOR shall include in any subcontract provisions similar to those contained in this Article 5 (except that the types and/or the limit provided for herein need not be identical) so that CONTRACTOR will have the rights and liabilities which OWNER and ENGINEER have, and the Subcontractor will have all the rights and liabilities which CONTRACTOR has, under the provisions of this Article 5.

**CONTRACTOR's Liability Insurance and Conditional Indemnification:**

5.5 CONTRACTOR shall indemnify, defend and hold harmless OWNER, ENGINEER, and their respective contractors, attorneys, officers, directors, agents and employees from and against all claims, civil or other penalties, costs, expenses, including, but not limited to, attorney's fees and damages arising out of or resulting from the performance of the Work, any Default, injury or conduct, want of care or skill, negligence, and patent infringement, providing that any such claim, civil or other penalties, damage, loss or expense is caused in whole or in part by any breach of any obligation under the Contract Documents, negligence, willful misconduct, or the negligent or culpable act or omission of CONTRACTOR, any Subcontractor, Supplier, anyone directly or indirectly employed or otherwise contracted with by any of them or anyone for whose acts any of them may be liable. The obligation of CONTRACTOR under this paragraph shall not extend to the liability of OWNER, ENGINEER, their respective contractors, attorneys, officers directors, agents or employees to the extent arising out of errors or omissions in maps, drawings, opinions, reports, surveys, change orders, designs or specifications which have been prepared by ENGINEER.

5.6 CONTRACTOR shall provide and maintain during the life of this Agreement "Workers' Compensation Insurance" for all of his employees employed at the Site of the Project and CONTRACTOR shall require each Subcontractor similarly to provide "Workers' Compensation Insurance" for all of the latter's employees unless such employees are covered by the protection afforded by CONTRACTOR. In case any employees who are engaged in performing any part of the Work at the Site of the Project are not protected under the "Workers' Compensation" coverage, CONTRACTOR shall provide, or shall cause each Subcontractor to provide adequate coverage for the protection of its employees not otherwise protected. Workers' compensation insurance limits will meet or exceed minimum limits established by the State of Maine. Whenever an employee of CONTRACTOR suffers an occupational injury or disease as a result of the Work and such injury or disease is required by the Workers' Compensation or Occupational Disease Laws to be reported to the proper authorities, a copy of such report shall be furnished promptly by CONTRACTOR to OWNER and ENGINEER. CONTRACTOR also shall require all Subcontractors to furnish copies of such reports to OWNER and ENGINEER in connection with occupational injuries or diseases sustained by their employees.

**Coverage For Personal Injury and Property Damage:**

5.7 CONTRACTOR shall provide and maintain during the life of this Agreement insurance that will protect it, OWNER, ENGINEER, and any Subcontractor from claims for damage for personal injury, including accidental death, as well as from claims for property damages which may arise from operations under this Agreement, whether such operations be by CONTRACTOR, by any Subcontractors, or by anyone directly or indirectly employed or contracted with by either of them.



5.7.1 All such insurance policies shall provide (unless by specific statute applicable thereto it is otherwise provided):

1. coverage for: (a) Damage to above-ground or underground property; (b) Collapse of structures; (c) Damage resulting from explosion or blasting; and

5.8 Insurance shall be provided with the following limits, jointly and severably covering OWNER and ENGINEER as additional insured as follows:

- 1 Bodily Injury Liability Insurance with limits of \$1,000,000 per person and \$1,000,000 per occurrence.
- 2 Comprehensive General Liability Insurance with a limit of \$5,000,000 per occurrence.
- 3 Automobile Insurance with a limit of \$1,000,000 per occurrence.
- 4 Umbrella Liability Insurance with a limit of \$5,000,000.
5. Contractor's Pollution Liability Insurance with a limit of \$2,000,000 per occurrence.

Professional Liability Insurance will be required of the CONTRACTOR (or subconsultant) in the event the CONTRACTOR is tasked with a design-build component of the Project.

The comprehensive general liability insurance required under this paragraph shall include completed operations insurance and contractual liability insurance applicable to CONTRACTOR's obligations under this Agreement. CONTRACTOR shall ensure that all such insurance will remain in effect until final payment is made under the Agreement and at all times thereafter when CONTRACTOR may be correcting, removing or replacing defective Work in accordance with paragraph 11.10. In addition, CONTRACTOR shall maintain such completed operations insurance for at least two years after final payment and furnish OWNER and ENGINEER with evidence of continuation of such insurance at final payment and one year thereafter. All other insurance provided pursuant to this paragraph 5.8 shall remain in effect until at least one (1) year following notification by OWNER that the Work prescribed has been fully performed.

- 5.8.1 The CONTRACTOR represents that, to the best of its knowledge, no claims have been made or are pending which may reduce the aggregate amounts of the any insurance which is presently in force and effect and available as specified in this paragraph 5.8, and that no significant claims have been made or are pending which would reduce the aggregate amounts of such insurance. CONTRACTOR shall, within five (5) days after the execution of the Agreement and prior to commencement of the Work, whichever is earliest, submit to OWNER and ENGINEER certificates from an insurance carrier licensed to transact insurance business in the State of Maine, certifying that all of the required insurance, as above described, is in force and effect and is carried with companies having Bests Key Rating Guide General Policyholders Rating of "A" and Financial Category of "Class X" or better are covered thereby, along with copies of each

policy required under this paragraph. CONTRACTOR understands and agrees that these certificates and copies of policies may be provided to MEDEP.

**Receipt and Application of Proceeds:**

5.10 Any insured loss under the policies of insurance required for this project will be adjusted with OWNER and ENGINEER and made payable to OWNER or ENGINEER for the insured, as their interests may appear. If no other special agreement is reached the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof and the Work and the cost thereof covered by an appropriate Change Order or Written Amendment.

**ARTICLE 6 - CONTRACTOR's RESPONSIBILITIES**

**Supervision and Superintendence:**

6.1 CONTRACTOR shall supervise and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Except as otherwise provided in the Contract Documents, CONTRACTOR shall be responsible for the means, methods, techniques, sequences, and procedures of construction, but CONTRACTOR shall not be responsible for the gross negligence of others (other than Subcontractors and Suppliers) in the design or selection of a specific means, method, technique, sequence or procedure of construction which is indicated in and required by the Contract Documents. CONTRACTOR shall be responsible to see that the finished Work complies accurately with the Contract Documents.

6.2 CONTRACTOR shall keep on the Work at all times during its progress a competent Site superintendent, who shall not be replaced without written notice to ENGINEER except under extraordinary circumstances. The superintendent shall be CONTRACTOR's representative at the Site and shall have authority to act on behalf of CONTRACTOR. All communications given to the superintendent shall be as binding as if given to the CONTRACTOR.

- 6.2.1 CONTRACTOR shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury or loss to (i) all individuals at the Site and all other individuals who may be affected by the performance of the Work; and (ii) all property owned by OWNER, ENGINEER, or other persons;
- 6.2.2 CONTRACTOR shall erect and maintain, as required by existing conditions and progress of the Work, all reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards;
- 6.2.3 CONTRACTOR shall comply, and shall cause all Subcontractors, Suppliers, and other non-employees it retains to comply, with the OWNER's or ENGINEER's instructions and rules relating to the times during which specific areas may be inspected, and any other regulations or rules including, but not limited to health, fire, safety, storage, parking and scheduling which OWNER or ENGINEER may impose;
- 6.2.4 CONTRACTOR shall assign personnel to perform the Work that are fit, qualified and competent to properly perform their assigned tasks and CONTRACTOR



shall properly supervise such personnel. CONTRACTOR represents that each and every employee of CONTRACTOR employed in connection with the Work, and each affiliate and each of its employees so employed, has the capability, experience, means and appropriate licenses and permits required to perform the Work under the Agreement. CONTRACTOR shall promptly remove and replace any person not so fit, competent and qualified. Further, CONTRACTOR shall promptly remove and replace any person not so fit, competent and qualified in the opinion of and upon the request of ENGINEER. In addition, CONTRACTOR acknowledges that any of its employees, agents or Subcontractors assigned any task under this Agreement have read the Final Design Report, Construction Drawings, Technical Specifications, and other associated documents, are familiar with their contents, and agree to comply with their respective terms and conditions as they pertain to any Work under the Agreement;

- 6.2.5 Upon completion of the Work, CONTRACTOR shall remove any and all of its and its Subcontractors', employees', and affiliates' tools, equipment, machinery and surplus materials from the Site and return all access areas to their original condition unless otherwise indicated in the Technical Specifications and Drawings; CONTRACTOR will remove from the Site all construction waste materials and rubbish generated by CONTRACTOR, ENGINEER, or its Subcontractors', employees', and affiliates in the course of, or in connection with the Work, and will dispose of the same in accordance with all applicable Laws and Regulations at a location off the Site (if off-Site disposal is deemed necessary) that is in compliance with all applicable Laws and Regulations.
- 6.2.6 To the extent practicable, CONTRACTOR shall conduct its activities hereunder so as not to interfere with other activities that may be conducted by OWNER, ENGINEER, or others at or about the Site and so as to preserve good relations at all times, and shall promptly remove and replace any of its affiliates causing any breach of the peace or other disturbance;
- 6.2.7 CONTRACTOR shall notify ENGINEER in writing if (i) CONTRACTOR is served with notice of violation of any law, regulation, permit or license which relates to its Work hereunder; (ii) proceedings are commenced which could lead to revocation of permits, licenses or other governmental authorizations which relate to such Work; (iii) permits, licenses or other governmental authorizations relating to such Work are revoked; (iv) litigation is commenced against CONTRACTOR which could affect its performance of the Work; or (v) CONTRACTOR becomes aware that its equipment or facilities related to the Work hereunder are not in compliance with applicable Laws and Regulations, permits or licenses, or the Contract Documents; and,
- 6.2.8 CONTRACTOR shall be responsible for security at the Site.

**Labor, Materials, and Equipment:**

6.3 CONTRACTOR shall be responsible for maintaining survey points provided by the ENGINEER. CONTRACTOR shall at all times maintain good discipline and order at the Site. Except in connection with the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except

as otherwise indicated in the Contract Documents, all Work at the Site shall be performed during regular working hours, and CONTRACTOR shall not permit overtime work or the performance of Work on Sunday or any legal holiday without the ENGINEER's written consent given after prior written notice to the ENGINEER.

6.4 Unless otherwise specified in these General Conditions, CONTRACTOR shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment, and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, safety and protection equipment, temporary facilities, and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up, and completion of the Work.

6.5 All materials and equipment installed as part of the Work shall be of good quality and new, except as otherwise provided in the Contract Documents. Whenever materials are sold by the manufacturer in sealed packages, they shall be so delivered to the project. If required by ENGINEER, the CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned in accordance with the instructions of the applicable Supplier except as otherwise provided in the Contract Documents. Materials and equipment designed for permanent installation in the Work shall be properly stored by the CONTRACTOR on the Site when delivered to insure protection against deterioration of any type. These materials shall be so placed as to cause a minimum of inconvenience to other contractors, if any, or to the public. The storage piles shall be arranged to facilitate inspections and any deterioration shall be grounds for rejection. If material stored on the job and paid for under the terms of the Agreement is damaged before its incorporation in the Work, the amounts paid the CONTRACTOR for the damaged materials shall be deducted from the next progress payment.

**Adjusting Progress Schedule:**

6.6 CONTRACTOR shall submit to ENGINEER for acceptance (to the extent indicated in paragraph 2.8) adjustments in the progress schedule to reflect the impact thereon of new developments; these will conform generally to the progress schedule then in effect and additionally will comply with any provisions of these General Conditions applicable thereto.

**Substitutes or "Or-Equal" Items:**

- 6.7.1 Whenever materials or equipment are specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier the naming of the item is intended to establish the type, function and quality required. Unless the name is followed by words indicating that no substitution is permitted, materials or equipment of other Suppliers may be accepted by ENGINEER if sufficient information is submitted by CONTRACTOR to allow the ENGINEER to determine that the material or equipment proposed is equivalent or equal to that named. Requests for review of substitute items of material and equipment will not be accepted by the ENGINEER from anyone other than CONTRACTOR. If CONTRACTOR wishes to furnish or use a substitute item of material or equipment, CONTRACTOR shall make written application to the ENGINEER for acceptance thereof, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar and of equal substance to that specified and be suited to the same use

as that specified. The application will state that the evaluation and acceptance of the proposed substitute will not prejudice CONTRACTOR's achievement of Substantial Completion on time, whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with ENGINEER for work on the Project) to adapt the design to the proposed substitute and whether or not incorporation or use of the substitute in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified will be identified in the application and available maintenance, repair, and replacement service will be indicated. The application will also contain an itemized estimate of all costs that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which shall be considered by ENGINEER in evaluating the proposed substitute. The ENGINEER may require CONTRACTOR to furnish, at CONTRACTOR's expense, additional data about the proposed substitute.

- 6.7.2 If a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents, CONTRACTOR may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to ENGINEER, if CONTRACTOR submits sufficient information to allow ENGINEER to determine that the substitute proposed is equivalent to that indicated or required by the Contract Documents. The procedure for review ENGINEER will be similar to that provided in Paragraph 6.7.1 as applied by ENGINEER and as may be supplemented in these General Conditions.
- 6.7.3 ENGINEER will be allowed a reasonable time within which to evaluate each proposed substitute. ENGINEER will be the sole judge of acceptability, and no substitute will be ordered, installed or utilized without ENGINEER's prior written acceptance which will be evidenced by either a Change Order or an approved Shop Drawing. ENGINEER may require CONTRACTOR to furnish, at CONTRACTOR's expense, a special performance guarantee or other surety with respect to any substitute. ENGINEER will record time required by ENGINEER in evaluating substitutions proposed by CONTRACTOR and in making changes in the Contract Documents occasioned thereby. Whether or not ENGINEER accepts a proposed substitute, CONTRACTOR shall reimburse ENGINEER for the charges of ENGINEER for evaluating each proposed substitute.
- 6.7.4 The burden of proof of the merit of the proposed substitute is solely upon the CONTRACTOR.

6.8 CONTRACTOR shall be fully responsible to OWNER and ENGINEER for all acts and omissions of the Subcontractors, Suppliers, and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR just as CONTRACTOR is responsible for CONTRACTOR's own acts and omissions. Nothing in the Contract Documents shall create any contractual relationship between OWNER or ENGINEER and any such Subcontractor, Supplier or other person or organization, nor shall it create any obligation on the part of OWNER to pay or to see to the payment of any moneys due any such Subcontractor, Supplier or other person or organization except as

may otherwise be required by Laws and Regulations.

**Patent Fees and Royalties:**

6.9 CONTRACTOR shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product or device which is the subject of patent rights, copyrights, or other intellectual property rights held by others. If a particular invention, design, process, product or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of OWNER or ENGINEER, its use is subject to patent rights, copyrights, or other intellectual property rights held by others calling for the payment of any license fee or royalty to others, the existence of such rights are disclosed by OWNER in the Contract Documents. CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, and anyone directly or indirectly employed by them from and against all claims, damages, losses, and expenses (including attorneys' fees and court and arbitration costs) arising out of any infringement of patent rights, copyrights, or other intellectual property rights or claims therefor incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product or device not specified in the Contract Documents, and shall defend all such claims in connection with any alleged infringement of such rights.

**Permits:**

6.10 CONTRACTOR shall obtain and pay for all construction permits and licenses. OWNER or ENGINEER shall reasonably assist CONTRACTOR, when necessary, in obtaining such permits and licenses. CONTRACTOR shall pay all governmental charges and inspection fees necessary for the prosecution of the Work, which are applicable at the time of opening of Bids, CONTRACTOR shall pay all charges of utility owners for connections to the Work.

**Laws and Regulations:**

- 6.11.1 CONTRACTOR shall give all notices and comply with all Laws and Regulations applicable to furnishing and performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, OWNER and ENGINEER shall not be responsible for monitoring compliance with any Laws or Regulations by CONTRACTOR, any Subcontractor, any Supplier, or any other party performing any part of the Work.
- 6.11.2 If CONTRACTOR observes that the Specifications or Drawings are at variance with any Laws or Regulations, CONTRACTOR shall give ENGINEER prompt written notice thereof, and any necessary changes will be authorized by one of the methods indicated in paragraph 3.4. If CONTRACTOR performs any Work knowing or having reason to know that it is contrary to such Laws or Regulations, and without such notice to ENGINEER, CONTRACTOR shall bear all costs arising therefrom.

**Taxes:**

6.12 CONTRACTOR shall pay all sales, consumer, use, and other similar taxes or fees required to be paid by CONTRACTOR which are applicable to and during the performance of the Work.

**Use of Premises:**

6.13 CONTRACTOR shall confine construction equipment, temporary construction trailers, the storage of materials and equipment and the operations of workers to those areas on the project Site and land and areas identified in and permitted by the Contract Documents and other land and areas permitted by Laws and Regulations, right-of-way, permits, and easements as designated by the ENGINEER after consultation with the owner of the identified property, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. In no instance shall CONTRACTOR store, or permit any Subcontractor or Supplier to store, or keep equipment or materials at the Site that are not being used, or will not be used, in the Performance of the Work. CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or of any land or areas contiguous thereto, resulting from the performance of the Work. CONTRACTOR is responsible for all permits, approvals, and costs associated with the placement of temporary construction trailers at the Site.

6.14 During the progress of the Work, CONTRACTOR shall keep the premises free from accumulations of construction waste materials, rubbish, and other debris resulting from the Work. At the discretion of the ENGINEER, the CONTRACTOR shall remove all construction waste materials, rubbish, and other debris resulting from the Work anytime during the term of the project. At the completion of the Work, CONTRACTOR shall remove all construction waste materials, rubbish, and debris from and about the premises as well as all tools, appliances, construction equipment, and machinery, temporary construction trailers, and surplus materials, and shall leave the Site clean and ready for occupancy. CONTRACTOR shall restore to original condition all property not designated for alteration by the Contract Documents.

6.15 CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger any structure, nor shall CONTRACTOR subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

**Record Documents:**

6.16 CONTRACTOR shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Written Amendments, Change Orders, Work Directive Changes, Field Orders, Quality Assurance/Quality Control Documentation and written interpretations and clarifications in good order and annotated to show all changes made during construction. CONTRACTOR shall update these documents daily in a clear and concise manner. These record documents together with all approved samples and a counterpart of all approved Shop Drawings will be available ENGINEER for reference. Upon completion of the Work, these record documents, samples, and Shop Drawings will be delivered to ENGINEER.

**Safety and Protection:**

6.17 CONTRACTOR shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. CONTRACTOR shall designate a qualified Health and Safety Officer who will be responsible for adherence to the construction Site safety plan. CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

6.17.1 all persons at the Site or who are Performing any part of the Work and other persons and organizations who may be affected thereby;



- 6.17.2 all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
- 6.17.3 other property at the Site or adjacent thereto including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and underground facilities not designated for removal, relocation or replacement in the course of construction.

CONTRACTOR shall comply with all applicable Laws and Regulations of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and of underground facilities and utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.

6.18 CONTRACTOR shall designate a responsible and qualified representative at the Site whose duty shall be the prevention of accidents. This person shall be CONTRACTOR's superintendent unless otherwise designated in writing by CONTRACTOR to ENGINEER.

**Emergencies:**

6.19 In emergencies affecting the safety or protection of persons or the Work, or property at the Site or adjacent thereto, CONTRACTOR, without special instruction or authorization from OWNER or ENGINEER, is obligated to act to prevent threatened damage, injury or loss. CONTRACTOR shall give ENGINEER prompt written notice if CONTRACTOR believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If ENGINEER determines that a change in the Contract Documents is required because of the action taken in response to an emergency, a Work Directive Change or Change Order will be issued to document the consequences of the changes or variations.

**Shop Drawings and Samples:**

6.20 After checking and verifying all field measurements and after complying with applicable procedures specified in the Contract Documents, CONTRACTOR shall submit to ENGINEER for review and approval in accordance with the accepted schedule of Shop Drawing submissions (see paragraph 2.8) copies of all Shop Drawings, which will bear a stamp or specific written indication that CONTRACTOR has satisfied CONTRACTOR's responsibilities under the Contract Document with respect to the review of the submission. All submissions will be identified as ENGINEER may require. The data shown on the Shop Drawings shall be complete with respect to quantities, dimensions, specified performance, and design criteria, materials and similar data to enable ENGINEER to review the information as required.

6.21 CONTRACTOR shall also submit to ENGINEER, as well as to the testing firm as required in the Technical Specifications, for review and approval with such promptness as to cause no delay in Work, all samples required by the Contract Documents. All samples will have been checked by and accompanied by a specific written indication that CONTRACTOR has satisfied CONTRACTOR's responsibilities under the Contract Documents with respect to the review of the submission and will be identified clearly as to material, Supplier, pertinent data such as catalog numbers and the use for which intended.

- 6.21.1 Before submission of each Shop Drawing or sample, CONTRACTOR shall have determined and verified all quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers, and similar data

with respect thereto and reviewed or coordinated each Shop Drawing or sample with other Shop Drawings and samples and with the requirements of the Work and the Contract Documents.

- 6.21.2 At the time of each submission, CONTRACTOR shall give ENGINEER specific written notice of each variation that the Shop Drawings or samples may have from the requirements of the Contract Documents, and, in addition, shall cause a specific notation to be made on each Shop Drawing submitted to ENGINEER for review and approval of each such variation.

6.22 ENGINEER will review and approve with reasonable promptness Shop Drawings and samples. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions. CONTRACTOR shall make corrections required by ENGINEER, and shall return copies of Shop Drawings and submit as required new samples for review and approval. CONTRACTOR shall direct specific attention in writing to revisions other than the corrections called for by ENGINEER on previous submittals.

6.23 ENGINEER's review and approval of Shop Drawings or samples shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the Contract Documents unless CONTRACTOR has in writing called ENGINEER's attention to each such variation at the time of submission as required by paragraph 6.21.2 and ENGINEER has given written approval of each such variation by a specific written notation thereof incorporated in or accompanying the Shop Drawing or sample approval; nor will any approval by ENGINEER relieve CONTRACTOR from responsibility for errors or omissions in the Shop Drawings or from Responsibility for having complied with the provisions of paragraph 6.21.1.

6.24 Where a Shop Drawing or sample is required by the Specifications, any related Work performed prior to ENGINEER's review and approval of the pertinent submission will be the sole expense and responsibility of CONTRACTOR.

**Concerning Subcontractors, Suppliers and Others:**

6.25 CONTRACTOR shall not employ or use any Subcontractor, Supplier or other person or organization (including those acceptable to OWNER and ENGINEER as indicated in Paragraph 5.16), whether initially or as a substitute, to Perform any part of the Work or to provide equipment or materials for the Work, against whom OWNER or ENGINEER may have reasonable objection.

6.26 If the Contract Documents require the identity of certain Subcontractors, Suppliers or other persons or organizations (including those who are to furnish the principal items of materials and equipment) to be submitted to OWNER in advance of the specified date prior to the Effective Date of the Agreement for acceptance by OWNER and ENGINEER, and if CONTRACTOR has submitted a list thereof in accordance with the Supplemental Conditions, OWNER's and ENGINEER's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or the Contract Documents) of any such Subcontractor, Supplier or other person or organization so identified may be revoked on the basis of reasonable objection after due investigation, in which case CONTRACTOR shall submit a substitute, acceptable to OWNER and ENGINEER. No acceptance by OWNER or ENGINEER of any such Subcontractor, Supplier or other person or organization shall constitute a waiver of any right of OWNER or ENGINEER to reject defective Work.

6.27 CONTRACTOR shall be fully responsible to OWNER and ENGINEER for all acts and omissions of

the Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR just as CONTRACTOR is responsible for CONTRACTOR's own acts and omissions. Nothing in the Contract Documents shall create any contractual relationship between OWNER and any such Subcontractor, Supplier or other person or organization other than CONTRACTOR, nor shall it create any obligation on the part of OWNER to pay or to see to the payment of any moneys due any such Subcontractor, Supplier or other person or organization except as may otherwise be required by Laws and Regulations.

6.28 The divisions and sections of the Technical Specifications and the identifications of any Drawings shall not control CONTRACTOR in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

6.29 All Work performed for CONTRACTOR by a Subcontractor will be pursuant to an appropriate agreement between CONTRACTOR and the Subcontractor which specifically binds the Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of OWNER and contains waiver provisions as required by paragraphs 5.10 through 5.12. CONTRACTOR shall pay each Subcontractor a just share of any insurance moneys received by CONTRACTOR on account of losses under policies issued pursuant to Paragraphs 5.5 through 5.9.

## **ARTICLE 7 - ENGINEER's STATUS DURING CONSTRUCTION**

### **OWNER's Representative**

7.1 ENGINEER will be OWNER's representative during the construction period. The duties and responsibilities and the limitations of authority of ENGINEER as OWNER's representative during construction are set forth in a separate agreement between them. ENGINEER is responsible for all technical decisions. The OWNER, with the input of the ENGINEER, shall be responsible for all financial decisions.

### **Clarifications and Interpretations:**

7.2 The ENGINEER will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents (in the form of Drawings or otherwise) as ENGINEER may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the Contract Documents.

### **Authorized Variations in Work:**

7.3 ENGINEER may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Time and are consistent with the overall intent of the Contract Documents. These may be accomplished by a Field Order and will be binding on ENGINEER, and also on CONTRACTOR who shall perform the Work involved promptly. If CONTRACTOR believes that a Field Order justifies an increase in the Contract Price or an extension of the Contract Time and the parties are unable to agree as to the amount or extent thereof, CONTRACTOR may make a claim therefore as provided in Articles 9 and 10.

### **Rejecting Defective Work:**

7.4 ENGINEER will have authority to disapprove or reject Work ENGINEER believes to be defective, and will also have authority to require special inspection or testing of the Work as provided in Paragraph



11.8, whether or not the Work is fabricated, installed or completed.

**Limitations on ENGINEER's Responsibilities:**

7.5 Neither ENGINEER's authority to act under this Article 7 or elsewhere in the Contract Documents nor any decision made by ENGINEER in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of ENGINEER to CONTRACTOR, any Subcontractor, any Supplier, or any other person or organization performing any of the Work, or to any surety for any of them.

7.6 Whenever in the Contract Documents the terms "as ordered", "as directed", "as required", "as allowed", "as approved" or terms of like effect or import are used, or the adjectives "reasonable", "suitable", "acceptable", "proper" or "satisfactory" or adjectives of like effect or import are used to describe a requirement, direction, review or judgment of ENGINEER as to the Work, it is intended that such requirement, direction, review or judgment will be solely to evaluate the Work for compliance with the Contract Documents (unless there is a specific statement indicating otherwise).

7.7 The ENGINEER will not be responsible for CONTRACTOR's means, methods, techniques, sequences or procedures of construction, provided that ENGINEER shall monitor the same to ensure timely and proper completion of the Work.

7.8 ENGINEER will determine the actual quantities and classifications of Unit Price Work performed by CONTRACTOR. ENGINEER will review CONTRACTOR's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Any disagreement with the ENGINEER's decision shall be resolved according to the procedures set forth in Section 18 of the Agreement.

**ARTICLE 8 - CHANGES IN THE WORK**

8.1 Without invalidating the Agreement and without notice to any surety, ENGINEER may, at any time or from time to time, order additions, deletions or revisions in the Work; these will be authorized by a Written Amendment, a Change Order, or a Work Directive Change. Upon receipt of any such document, CONTRACTOR shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

8.2 If ENGINEER and CONTRACTOR are unable to agree as to the extent, if any, of an increase or decrease in the Contract Price or an extension or shortening of the Contract Time that should be allowed as a result of a Work Directive Change, a claim may be made therefor as provided in Article 9 or Article 10.

8.3 CONTRACTOR shall not be entitled to an increase in the Contract Price or an extension of the Contract Time with respect to any Work performed that is not required by the Contract Documents as amended, modified, and supplemented as provided in paragraphs 3.4 and 3.5, except in the case of an emergency as provided in Paragraph 6.19 and except in the case of uncovering Work as provided in Paragraph 11.8.

8.4 ENGINEER and CONTRACTOR shall execute appropriate Change Orders (or Written Amendments) covering:

8.4.1 changes in the Work which are ordered by ENGINEER pursuant to Paragraph

8.1, or are required because of acceptance of defective Work under Paragraph 11.11, or are agreed to by the parties; and

8.4.2 changes in the Contract Price or Contract Time which are agreed to by the parties.

8.5 If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Time) is required by the provisions of any Bond to be given to a surety, or to any insurer pursuant to any insurance policy required by the terms of Contract Documents, the giving of any such notice will be CONTRACTOR's responsibility, and the amount of each applicable Bond will be adjusted accordingly.

8.6 CONTRACTOR shall promptly, and before such conditions are disturbed, notify ENGINEER in writing of: (i) subsurface or latent physical conditions at the Site differing materially from those contemplated by the Agreement, or (ii) unknown physical conditions at the Site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in Work of the character provided for in the Agreement. Upon notification by the CONTRACTOR, ENGINEER shall promptly investigate the conditions. If the ENGINEER finds that these conditions materially differ and will cause an increase or decrease in the CONTRACTOR's cost or the time required to perform any part of the Work under the Agreement, the ENGINEER will recommend, and the OWNER will make an equitable adjustment and modify the Agreement. However, no claim of the CONTRACTOR under this provision shall be allowed unless the CONTRACTOR has given the notice required by this subparagraph, provided further, however, that ENGINEER may extend the time prescribed in this subparagraph. No claim by the CONTRACTOR for an equitable adjustment shall be allowed if asserted after final payment under the Agreement.

## **ARTICLE 9 - CHANGE OF CONTRACT PRICE**

9.1 The Contract Price constitutes the total compensation (subject to authorized adjustments) payable to CONTRACTOR for performing the Work. All duties, responsibilities, and obligations assigned to or undertaken by CONTRACTOR shall be at his expense without change in the Contract Price.

9.2 The Contract Price may only be changed by a Change Order or by a Written Amendment. Any claim for an increase or decrease in the Contract Price shall be based on written notice delivered by the party making the claim to the other party (with a copy to the ENGINEER) promptly (but in no event later than thirty (30) days) after the occurrence of the event giving rise to the claim and stating the nature of the claim and that the amount claimed covers all known amounts (direct, indirect, and consequential) to which the claimant is entitled as a result of the occurrence of said event. All data supporting the claim shall be attached to the written notice. Any claim made by a party under Article 9 shall be resolved according to the procedures set forth in Section 18 of the Agreement. No claim for an adjustment in the Contract Price will be valid if not submitted in accordance with this paragraph 9.2.

9.3 The value of any Work covered by a Change Order or any claim for an increase or decrease in the Contract Price shall be determined in one of the following ways:

9.3.1 Where the Work involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities of the items involved.

9.3.2 By mutual acceptance of a lump sum.

- 9.3.3 On the basis of the actual unburdened cost of materials, equipment and labor incorporated into the Work, plus a CONTRACTOR's fee for overhead and profit, as pre-determined in the Bid by the CONTRACTOR for the initial scope of the Work.

## **ARTICLE 10 - CHANGE OF CONTRACT TIME**

10.1 The Contract Time may only be changed by a Change Order or a Written Amendment. Subject to Section 7 of the Agreement, any claim for an extension or shortening of the Contract Time shall be based on written notice delivered by the party making the claim to the other party (with a copy to the ENGINEER) promptly (but in no event later than thirty (30) days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim and that the adjustment claimed is the entire adjustment to which the claimant has reason to believe it is entitled as a result of the occurrence of said event. All data supporting the claim shall be attached to the written notice. Any claim made by a party under Article 10 shall be resolved according to the procedures set forth in Section 18 of the Agreement. No claim for an adjustment in the Contract Time will be valid if not submitted in accordance with the requirements of this paragraph 10.1 and Section 7 of the Agreement. Notwithstanding any allowance of an extension of the Contract Time, CONTRACTOR remains liable subject to Section 7 of the Agreement for all damages (including but not limited to fees and charges of engineers, architects, attorneys, and other professionals, penalties, and court and arbitration costs) sustained by OWNER or ENGINEER as a result of the delayed performance.

## **ARTICLE 11 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK**

### **Access to Work:**

11.1 ENGINEER's representatives, other representatives of OWNER, testing agencies, and governmental agencies with jurisdictional interests will have access to the Work at reasonable times for their observation, inspecting, and testing. CONTRACTOR shall provide proper and safe conditions for such access.

### **Tests and Inspections:**

11.2 CONTRACTOR shall give ENGINEER timely notice of readiness of the Work for all required inspections, tests or approvals.

11.3 If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) to specifically be inspected, tested or approved, CONTRACTOR shall assume full responsibility therefore, pay all costs in connection therewith and furnish ENGINEER the required certificates of inspection, testing or approval. CONTRACTOR shall also be responsible for and shall pay all costs in connection with any inspection or testing required in connection with ENGINEER's acceptance of a Supplier of materials or equipment proposed to be incorporated in the Work, or of materials or equipment submitted for approval prior to CONTRACTOR's purchase thereof for incorporation in the Work.

11.4 All inspections, tests or approvals other than those required by Laws or Regulations of any public body having jurisdiction shall be performed by organizations acceptable to ENGINEER and CONTRACTOR.

11.5 If any Work (including the work of others) that is to be inspected, tested or approved is covered

without written concurrence of ENGINEER, it must, if requested by ENGINEER, be uncovered for observation. Such uncovering shall be at CONTRACTOR's expense unless CONTRACTOR has given ENGINEER timely notice of CONTRACTOR's intention to cover the same and ENGINEER has not acted with reasonable promptness in response to such notice.

11.6 Neither observations by ENGINEER nor inspections, tests or approvals by others shall relieve CONTRACTOR from CONTRACTOR's obligations to perform the Work in accordance with the Contract Documents.

**Uncovering Work:**

11.7 If any Work is covered contrary to the written request of ENGINEER, it must, if requested by ENGINEER, be uncovered for ENGINEER's observation and replaced at CONTRACTOR's expense.

11.8 If ENGINEER considers it necessary or advisable that covered Work be observed by ENGINEER or inspected or tested by others, CONTRACTOR, at ENGINEER's request, shall uncover, expose or otherwise make available for observation, inspection or testing as ENGINEER may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment. If it is found that such Work is defective, CONTRACTOR shall bear all direct, indirect, and consequential costs of such uncovering, exposure, observation, inspection, and testing and of satisfactory reconstruction, (including but not limited to fees and charges of engineers, architects, attorneys, and other professionals), and OWNER shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof may make a claim therefore as provided in Article 9. If however, such Work is not found to be defective, and such Work is not subject to paragraph 11.7 of these General Conditions, CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, and reconstruction; and, if the parties are unable to agree as to the amount or extent thereof, CONTRACTOR may make a claim therefore as provided in Articles 9 and 10.

**May Stop the Work:**

11.9 If the Work is defective, or CONTRACTOR fails to supply sufficient skilled workers or suitable materials or equipment, or fails to furnish or perform the Work in such a way that the completed Work will conform to the Contract Documents, ENGINEER may order CONTRACTOR to stop the Work, or any portion thereof until the cause for such order has been eliminated; however, this right of ENGINEER to stop the Work shall not give rise to any duty on the part of ENGINEER to exercise this right for the benefit of CONTRACTOR or any other party.

**Correction or Removal of Defective Work:**

11.10 If required by ENGINEER, CONTRACTOR shall promptly, as directed, either correct all defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by ENGINEER, remove it from the Site and replace it with non-defective Work, CONTRACTOR shall bear all direct, indirect, and consequential costs of such correction or removal (including but not limited to fees and charges of engineers, architects attorneys, and other professionals) made necessary thereby.

**Acceptance of Defective Work:**

11.11 If, instead of requiring correction or removal and replacement of defective Work, ENGINEER prefers to accept it, ENGINEER may do so. CONTRACTOR shall bear all direct, indirect, and

consequential costs attributable to ENGINEER's evaluation of and determination to accept such defective Work (such costs to include but not be limited to fees and charges of engineers, architects, attorneys, and other professionals). If any such acceptance occurs prior to ENGINEER's recommendation of final payment a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, OWNER may make a claim therefore as provided in Article 9. If the acceptance occurs after such recommendation, CONTRACTOR shall pay an appropriate amount to OWNER.

**OWNER May Correct Defective Work:**

11.12 If CONTRACTOR fails within a reasonable time not to exceed 30 days after written notice of ENGINEER to proceed to correct defective Work or to remove and replace rejected Work as required by ENGINEER in accordance with paragraph 11.10, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if CONTRACTOR fails to comply with any other provision of the Contract Documents, OWNER may, after seven (7) days written notice to CONTRACTOR, correct and remedy any such deficiency. In exercising the rights and remedies under this paragraph, OWNER shall proceed expeditiously. To the extent necessary to complete corrective and remedial action, OWNER may exclude CONTRACTOR from all or part of the Site, take possession of CONTRACTOR's tools, appliances, construction equipment, and machinery at the Site and incorporate in the Work all materials and equipment stored at the Site or for which OWNER has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow OWNER's agents and employees such access to the Site as may be necessary to enable OWNER to exercise the rights and remedies under this paragraph. All direct, indirect, and consequential costs of OWNER in exercising such rights and remedies will be charged against CONTRACTOR in an amount approved as to reasonableness by ENGINEER, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount therefore; OWNER may make a claim therefore as provided in Article 9. Such direct, indirect, and consequential costs will include but not be limited to fees and charges of engineers, architects, attorneys, and other professionals, all court and arbitration costs and all costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of CONTRACTOR's defective Work. CONTRACTOR shall not be allowed an extension of the Contract Time because of any delay in performance of the Work attributable to the exercise by OWNER's rights and remedies hereunder.

**ARTICLE 12 - PAYMENTS TO CONTRACTOR AND COMPLETION**

**Schedule of Values:**

12.1 The schedule of values established as provided in Paragraph 2.8 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to OWNER and ENGINEER. Progress payments on account of Unit Price Work will be based on the number of units completed. Payment for materials will be made for those installed only.

**Application for Progress Payment:**

12.2 At least twenty (20) days before each progress payment is scheduled (but not more often than once any calendar month), CONTRACTOR shall submit to ENGINEER for review an Application for Payment filled out and signed by CONTRACTOR covering the Work completed as of the date of the



Application and accompanied by such supporting documentation (including lien waivers of CONTRACTOR, Subcontractors, and Suppliers) as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice or other documentation warranting that OWNER has received the materials and equipment free and clear of all liens, charges, security interests, and encumbrances (which are hereinafter in these General Conditions referred to as "Liens") and evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect OWNER's interest therein, all of which will be satisfactory to ENGINEER.

12.3 Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the established unit prices for each separately identified item of Unit Price Work times the estimated quantity of each item of Unit Price Work as indicated in the Agreement. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by CONTRACTOR will be made by ENGINEER in accordance with Paragraph 7.8.

12.3.1 Each unit price will be deemed to include an amount considered by CONTRACTOR to be adequate to cover CONTRACTOR's overhead and profit for each separately identified item.

12.3.2 Where the quantity of any item of Unit Price Work performed by CONTRACTOR differs materially and significantly from the estimated quantity of such item indicated in the Agreement and there is no corresponding adjustment with respect to any other item of Work and if CONTRACTOR believes that CONTRACTOR has incurred additional expense as a result thereof, CONTRACTOR may make a claim for an increase in the Contract Price in accordance with Article 9 if the parties are unable to agree as to the amount of any such increase.

#### **CONTRACTOR's Representations:**

12.4 Each invoice submitted by CONTRACTOR shall constitute a representation by CONTRACTOR that (i) the amount requested is justly due based on the Schedule of Values, (ii) the Work which is the subject of the invoice has been performed in accordance with the Contract Documents, (iii) the materials, supplies, and equipment for which such invoice is submitted have been installed or stored at the Site, (iv) the materials, supplies, and equipment for which such invoice is submitted are insured in accordance with this Agreement, (v) the materials, supplies, and equipment for which such invoice is submitted are not subject to any encumbrances, and (vi) no mechanics', laborers', vendors', or other liens have been filed in connection with or on account of the Work performed hereunder or any of the materials, supplies, or equipment incorporated therein or purchased or used in connection therewith, and that valid lien waivers have been obtained and provided to ENGINEER for all such Work, materials, supplies and equipment.

#### **Review of Applications for Progress Payment:**

12.5 ENGINEER will, within ten (10) days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to ENGINEER, or return the Application to CONTRACTOR indicating in writing ENGINEER's reasons for refusing to recommend

payment. In the latter case, CONTRACTOR may make the necessary corrections and resubmit the Application. Forty-five (45) days after presentation of the Application for Payment with ENGINEER's recommendation, the amount recommended will become due and when due will be paid by OWNER to CONTRACTOR; provided, however, that ten percent (10%) of each payment request agreed to by the ENGINEER shall be retained until the Work has been accepted and shall be a part of the final payment made to the CONTRACTOR pursuant to Paragraph 12.12.

12.6 ENGINEER may refuse to recommend any such payment, or, because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify any such payment previously recommended, to such extent as may be necessary in ENGINEER's opinion to protect OWNER from loss because:

- 12.6.1 the Work is defective, or completed Work has been damaged requiring correction or replacement;
- 12.6.2 the Contract Price has been reduced by Written Amendment or Change Order;
- 12.6.3 OWNER has been required to correct defective Work or complete Work in accordance with Paragraph 11.12; or,
- 12.6.4 of ENGINEER's actual knowledge of the occurrence of any of the following enumerated events:
  - 12.6.4.1 CONTRACTOR commences a voluntary case under any chapter of the Bankruptcy Code (Title 11, United States Code), as now or hereafter in effect, or if CONTRACTOR takes any equivalent or similar action by filing a petition or otherwise under any other federal or state law in effect at such time relating to the bankruptcy or insolvency;
  - 12.6.4.2 a petition is filed against CONTRACTOR under any chapter of the Bankruptcy Code as now hereinafter in effect at the time of filing, or if a petition is filed seeking any such equivalent or similar relief against CONTRACTOR under any other federal or state law in effect at the time relating to bankruptcy or insolvency;
  - 12.6.4.3 CONTRACTOR makes a general assignment for the benefit of creditors;
  - 12.6.4.4 trustee, receiver, custodian or agent of CONTRACTOR is appointed under applicable law or under contract, whose appointment or authority to take charge of property of CONTRACTOR is for the purpose of enforcing a Lien against such property or for the purpose of general administration of such property for the benefit of CONTRACTOR's creditors;
  - 12.6.4.5 a basic and essential change in the organizational structure of the CONTRACTOR, or a transfer of any ownership interest in the CONTRACTOR occurs which materially affects the ability of the CONTRACTOR to perform under these Contract Documents;

- 12.6.4.6 CONTRACTOR admits in writing an inability to pay its debts generally as they become due, or the CONTRACTOR is or becomes insolvent in any sense;
- 12.6.4.7 CONTRACTOR persistently fails to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule established under Paragraph 2.8 as revised from time to time);
- 12.6.4.8 CONTRACTOR disregards Laws or Regulations of any public body having jurisdiction;
- 12.6.4.9 CONTRACTOR disregards the authority of ENGINEER; or,
- 12.6.4.10 CONTRACTOR otherwise violates in any substantial way any provisions of the Contract Documents.

Owner will retain the right, but not the obligation, to succeed to the CONTRACTOR's rights under any subcontract or supply contract in the event of default and that all subcontracts and supply contracts must state that the Subcontractor or Supplier to the CONTRACTOR agrees to the same. OWNER may refuse to make payment of the full amounts in the event of default because claims have been made against OWNER or ENGINEER on account of CONTRACTOR's performance or furnishing of the Work, or Liens have been filed in connection with the Work or there are other items entitling OWNER to a set-off against the amount recommended, but OWNER must give CONTRACTOR written notice stating the reasons for such action. Any disputes regarding the ENGINEER's recommendations on the payment of invoiced amounts shall be resolved according to the procedure set forth in Section 18 of the Agreement.

12.7 No payment under this Agreement shall be deemed acceptance of the performance of this Agreement, either in whole or in part, or be construed as an acceptance of defective, improper, or non-conforming Work or material; or in any manner release, diminish, or relieve the obligations of CONTRACTOR under this Agreement.

- 12.7.1 Upon request, CONTRACTOR shall provide additional reasonable documentation of any charges included in its invoice(s) to ENGINEER. If such documentation is not provided in a timely manner and does not demonstrate, to ENGINEER's reasonable satisfaction, that the charges are correct, OWNER may withhold from payment any charges that ENGINEER reasonably believes to be inappropriate or incorrect until such documentation is provided or until any errors therein are corrected. OWNER shall have the right to audit or require CONTRACTOR to audit its records concerning its charges to OWNER. Any errors shall be promptly adjusted and promptly paid by or to OWNER following receipt and review of such audit by OWNER.
- 12.7.2 Notwithstanding anything to the contrary herein contained, OWNER may, upon written notice to CONTRACTOR specifying in detail the factual basis therefor, set off against payment due CONTRACTOR, such sums as are reasonably necessary to protect OWNER against any loss or damage which may result from the negligence of or unsatisfactory work by CONTRACTOR, any Subcontractor,



any Supplier, or any of their respective affiliates (including, without limitation, penalties and other costs and expenses incurred by OWNER or ENGINEER in connection with the failure of CONTRACTOR, any Subcontractor, any Supplier, or any of their respective affiliates, to provide adequate equipment, personnel, material or labor in a timely manner), failure by the CONTRACTOR, any Subcontractor, any Supplier, or any of their respective affiliates to perform CONTRACTOR's obligations hereunder, or claims filed against OWNER or ENGINEER relating to the Work. The set off of payment due to the CONTRACTOR shall be in addition to any other remedies which may be available to OWNER or ENGINEER in the event that OWNER or ENGINEER suffer loss or damage resulting from the acts or omissions of the CONTRACTOR or its affiliates.

12.8 When CONTRACTOR considers the entire Work ready for its intended use CONTRACTOR shall notify ENGINEER in writing that the entire Work is substantially complete (except for items specifically listed by CONTRACTOR as incomplete) and request that ENGINEER issue a certificate of Substantial Completion. Within a reasonable time thereafter OWNER, ENGINEER, and CONTRACTOR shall make an inspection of the Work to determine the status of completion. If ENGINEER does not consider the Work substantially complete, ENGINEER will notify CONTRACTOR in writing giving the reasons therefore. If ENGINEER considers the Work substantially complete, ENGINEER will prepare and deliver to OWNER and CONTRACTOR a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. OWNER shall have seven (7) days after receipt of the tentative certificate during which to make written objection to ENGINEER as to any provisions of the certificate or attached list. If, after considering OWNER's objections, ENGINEER concludes that the Work is not substantially complete, ENGINEER will, within fourteen (14) days after submission of the tentative certificate to OWNER, notify CONTRACTOR in writing, stating the reasons therefore. If OWNER considers the Work substantially complete, ENGINEER will within said fourteen (14) days execute and deliver to OWNER and CONTRACTOR a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as ENGINEER believes justified after consideration of any objections from OWNER. If OWNER disagrees, OWNER shall inform ENGINEER and CONTRACTOR promptly in writing and may initiate an arbitration proceeding under the American Arbitration Association rules. At the time of delivery of the tentative certificate of Substantial Completion ENGINEER will deliver to OWNER and CONTRACTOR a written recommendation as to division of responsibilities pending final payment between OWNER and CONTRACTOR with respect to security, operation, safety, maintenance, utilities, insurance, and warranties. Unless OWNER and CONTRACTOR agree otherwise in writing prior to ENGINEER's issuing the definitive certificate of Substantial Completion, ENGINEER's aforesaid recommendation will be binding on OWNER and CONTRACTOR until final payment.

12.9 OWNER shall have the right to exclude CONTRACTOR from the Work after the date of Substantial Completion, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the tentative list.

#### **Final Inspection:**

12.10 Upon written notice from CONTRACTOR that the entire Work is complete, ENGINEER will make a final inspection with OWNER and CONTRACTOR and will notify CONTRACTOR in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. CONTRACTOR shall immediately take such measures as are necessary to remedy such deficiencies.

**Final Application for Payment:**

12.11 After CONTRACTOR has completed all such corrections to the satisfaction of ENGINEER and delivered all maintenance and operating instructions, schedules, guarantees, Bonds, insurance policies, warranties, certificates of inspection, marked-up record documents (as provided in paragraph 6.16), and other documents - all as required by the Contract Documents - and after ENGINEER has indicated that the Work is acceptable (subject to the provisions of paragraph 12.12), CONTRACTOR may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied by all documentation called for in the Contract Documents, together with complete and legally effective releases or waivers (satisfactory to OWNER and ENGINEER) of all Liens arising out of or filed in connection with the Work.

**Final Payment and Acceptance:**

12.12 If ENGINEER is satisfied that the Work has been completed and CONTRACTOR's obligations under the Contract Documents have been fulfilled, ENGINEER will, within thirty (30) days after receipt of the final Application for Payment, indicate in writing ENGINEER's recommendation of payment and present the Application to OWNER for payment. Thereupon ENGINEER will give written notice to CONTRACTOR that the Work is acceptable. Otherwise, ENGINEER will return the Application to CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections and resubmit the Application. Forty-five (45) days after presentation to ENGINEER of the Application and accompanying documentation, in appropriate form and substance, and with ENGINEER'S recommendation and notice of acceptability, the amount recommended by ENGINEER will become due and will be paid by ENGINEER to CONTRACTOR.

**CONTRACTOR's Continuing Obligation:**

12.13 CONTRACTOR's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. Neither recommendation of any progress or final payment by OWNER, nor any payment by OWNER to CONTRACTOR under the Contract Documents, nor any use or occupancy of the Work or any part thereof by OWNER or ENGINEER, nor any act of acceptance by ENGINEER nor any failure to do so, nor any review and approval of a Shop Drawing or sample submission, nor the issuance of a notice of acceptability by ENGINEER pursuant to Paragraph 12.12, nor any correction of defective Work by OWNER and/or ENGINEER will constitute an acceptance of Work not in accordance with the Contract Documents or a release of CONTRACTOR's obligation to perform the Work in accordance with the Contract Documents.

**Waiver of Claims:**

The making and acceptance of final payment will not constitute:

12.14 A waiver of claims by OWNER against CONTRACTOR arising from unsettled Liens, from defective Work appearing after final inspection pursuant to paragraph 12.10, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein or arising from any rights in respect of CONTRACTOR's obligations under the Contract Documents; and

12.15 A waiver of claims by CONTRACTOR against OWNER other than those previously made in writing and fully and finally settled.

## **ARTICLE 13 - SUSPENSION OF WORK**

### **OWNER AND ENGINEER May Suspend Work:**

13.1 OWNER may, at any time and without cause, suspend the Work or any portion thereof for a period of not more than ninety (90) days by notice in writing to CONTRACTOR and ENGINEER that will fix the date on which Work will be resumed. CONTRACTOR shall resume the Work on the date so fixed. CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to any suspension if CONTRACTOR makes an approved claim therefore as provided in Articles 9 and 10.

## **ARTICLE 14 - MISCELLANEOUS**

### **Computation of Time:**

14.1 When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

14.1.1 A calendar day of twenty-four hours measured from midnight to the next midnight shall constitute a day.

14.1.2 A week shall be defined as a calendar week measured from midnight of the first day to midnight of the seventh day thereafter.

14.2 The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, at law or in equity, by special warranty or guarantee or by other provisions of the Contract Documents. All representations, warranties, and guarantees made in the Contract Documents will survive final payment and termination or completion of the Agreement.

### **Emergency Notification:**

14.3 CONTRACTOR shall provide to ENGINEER a list of person(s) including name, address, and telephone number who can be contacted on a 24-hour basis in case of emergencies throughout the length of the Agreement.

### **Given Notice:**

14.4 Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice. Notice shall be effective when received.

### **Governing Law:**

14.5 The laws of the State of Maine shall govern the Agreement. Contractor agrees that all actions and

proceedings brought by Owner against Contractor may be litigated in courts located in the State of Maine. Contractor further agrees that all actions and proceedings brought by Contractor against Owner shall be litigated in courts located in Cumberland County, Maine. Contractor agrees that such courts are convenient forums and irrevocably submits to the personal jurisdiction of such courts. Contractor waives personal service of process and consents to service of process by certified or registered mail at the address designated for receiving notices under the Agreement.

**Miscellaneous:**

14.6 No failure to exercise, or delay in exercising, any right or remedy of either party under the terms of the Agreement shall constitute a waiver or relinquishment of that right or remedy. No waiver or relinquishment by either party of any default or of any right under the terms of the Agreement shall be deemed a waiver or relinquishment of any subsequent default or right or of the same default or right arising at another time. If any provision of the Contract Documents is held to be invalid, such invalidity shall not affect the remaining provisions of the Contract Documents. Headings are provided for the convenience of the parties, and shall not affect the interpretation of any provision of the Contract Documents.

**END OF SECTION**

**TECHNICAL SPECIFICATIONS  
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**DIVISION 1 – GENERAL REQUIREMENTS**

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**PART 1 - GENERAL**

**1.01 DEFINITIONS**

- A. Whenever the following terms are used in these Specifications, it is understood that they represent the following:
1. OWNER:  
City of Augusta (Augusta)  
City Center  
16 Cony Street  
Augusta, Maine 04330-5298
  2. ENGINEER:  
Summit Environmental Consultants, Inc. (Summit)
  3. CONTRACTOR:  
The individual, firm, partnership, or corporation which is determined to be the successful Bidder.

**1.02 SITE CONDITIONS**

A. General

There will be no payment for any extras as a consequence of the CONTRACTOR's misunderstanding the descriptions contained in the Contract, Specifications and Drawings. The CONTRACTOR shall inspect the site and request answers to all questions that relate to the Work, its execution, and other details prior to submitting a Bid.

B. Site Access and Work Areas

Any access roadways, marshalling yards, storage areas, Work areas or other areas that the CONTRACTOR must use are the CONTRACTOR's sole responsibility to keep passable at its cost. The CONTRACTOR shall understand that surrounding streets must not be impacted by the Work. CONTRACTOR shall ensure that construction activities do not interfere with street traffic at any time.

The CONTRACTOR will be responsible for snow removal as necessary to access areas of Work.

C. Night and Sunday Work

Unless otherwise especially permitted, no Work shall be done between the hours of 6:00 p.m. and 7:00 a.m. or on Sunday, except as necessary for the proper care of and protection of Work already performed.

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D. Work in Bad Weather

During freezing, stormy or inclement weather, no Work shall be done except such as can be done satisfactorily and in a manner to secure safe first-class construction throughout. Material backfill and compaction shall not be undertaken during freezing, heavy precipitation, or otherwise inclement weather, as determined by the ENGINEER.

1.03 **CODES AND STANDARDS**

- A. The Work shall conform to all local, state and federal codes, comply with standards, referenced in these Specifications, and adhere to regulatory requirements presented in Section 01060-REGULATORY REQUIREMENT AND RESPONSIBILITY TO THE PUBLIC, which are described elsewhere in these Specifications. The latest issue shall be used unless specifically noted otherwise.

1.04 **SCOPE AND SEQUENCE OF WORK**

- A. The Scope-of-Work shall include but not be limited to furnishing all labor, materials, methods, services, tools, machinery and equipment necessary for the construction of the Work as specified herein and shown on the Drawings.
- B. The CONTRACTOR shall supply all necessary materials except those specifically designated as furnished by the OWNER, the ENGINEER, or furnished by others.
- C. The Work covered under this Contract shall include, but is not limited to the following items:
1. Mobilization/demobilization.
  2. Furnishing a temporary field office, along with temporary electrical power, telephone communications, separate men and women sanitary facilities, and potable water.
  3. Installation of a perimeter steel chain link fence in locations shown on the Drawings. Provide site security (barriers, guards, flagman) as necessary.
  4. Installation of snow fence in locations shown on the drawings to prevent tracking of potentially polychlorinated biphenyl (PCB)-impacted soils.
  5. Snow removal and stockpiling. In the even that snow accumulates in quantities more than the Site can handle, the City will provide an alternate location for snow stockpiling. The Contractor will be responsible for any off-site transportation.
  6. Establishment and maintenance of erosion and sediment controls and stormwater management silt fence, check dams, flood water management, isolation of catch basins, and any other necessary controls required in these Specifications and Drawings, and to perform the Work.



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7. Removal and disposal of asbestos containing materials (ACM). Work includes regulatory agency notification, abatement design, removal, clearance inspection and air sampling and disposal.
8. Removal and disposal of hazardous waste, residuals and Universal Wastes.
9. Decontamination/cleaning of tanks, pits and building floors including disposal/handling of wastewater and residuals. Work includes removal of contents of cisterns in basements, water and sludge from the former wastewater treatment plant, and oil staining within the boiler plant.
10. Remove biohazards (i.e., pigeon guano).
11. Remove residual fuel oil and non-regulated materials contained within piping. Piping to be removed and properly disposed once drained.
12. Drain residual Number 6 heating oil from between the 15,000 gallon underground storage tank (UST) and the boiler house and remove all exposed piping. The CONTRACTOR shall install a blank off plate where the pipe goes beneath the railroad tracks.
13. Demolition and/or removal of all structures, equipment and building contents to ground level or where so indicated by the Engineer.
  - a. Structures to be demolished (as referenced on the drawings) include:
    - Building #1
    - Building #18
    - Building #3
    - Building #4
    - Building #4A
    - Building #6
    - Building #10
    - Building #11 and associated sluiceway
    - Building #7
    - Building #14A
    - Building #14
    - Building #13
    - Building #15B
    - Building #15A
    - Building #16
    - Control Building and Trailer Addition
    - Sludge Pad
    - Wastewater Treatment Plant (entirety)
    - Stack and Stack Feed Line
    - Guard House
    - Scale House

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All debris, equipment and materials shall become property of the Contractor and be disposed/recycled/re-used off-site. The Contractor shall be responsible for all transportation and disposal/recycling costs. Painted surfaces are assumed to contain lead based paint and will be properly demolished, handled and disposed in accordance with all applicable regulations. MEDEP requires that building components with LBP be disposed of in a licensed Construction and Demolition (C&D) landfill, and that a manifest documenting the disposal of this material be provided to the Owner.

14. Place and compact backfill (granular fill or crushed inert fill demolition materials) in below grade areas.
15. Stabilize disturbed areas and re-establish erosion and sediment controls as necessary.
16. Other Work shown on the Drawings and specified herein, or as otherwise required for facility demolition.

**1.06 COOPERATION**

- A. There may be other Engineers and/or Contractors, OWNER personnel and/or Regulators present at the site. The CONTRACTOR shall make every effort reasonably possible to cooperate with all authorized outside personnel. Any disputes shall be settled by and at the sole discretion of the OWNER.

**1.08 CONTRACTOR'S RESPONSIBILITIES AND WORK**

- A. The CONTRACTOR shall furnish all construction equipment, machines, tools, materials, field sanitary facilities, security, protection of Work, other services, supplies, labor, and supervision that are necessary to complete the Work and requirements as described or implied in these Specifications and Drawings.
- B. The CONTRACTOR shall provide all transportation for the items included in Part 1.08A of this Section from its headquarters or other locations to and from the site.
- C. The CONTRACTOR shall furnish all housing, travel, required training, personal safety equipment, and related allowances required by its employees to meet the minimum standards of the OWNER and the Site Health and Safety Plan. No housing facilities shall be permitted on the site.
- D. Neither the CONTRACTOR nor any of its employees shall drive or park any vehicle anywhere on the site, except at such locations as shown or as specifically approved by the OWNER.
- E. The CONTRACTOR shall provide sufficient workers and supervisory personnel to maintain Work progress so that the various areas of Work will be completed in accordance with the schedule or sequence defined elsewhere in these Specifications. If, in the opinion of the OWNER, the Work is behind schedule or is improperly staffed, the OWNER will direct the CONTRACTOR to increase its complement of supervisors, workmen, or equipment so as to comply with the schedule. The CONTRACTOR shall discharge any such directives promptly.

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and without expectation of additional compensation. If the CONTRACTOR fails to discharge any of these directives, the ENGINEER may arrange for such directives to be discharged at the sole cost of the CONTRACTOR.

- F. The CONTRACTOR shall make all overtime, premium, and incentive payments to the CONTRACTOR's employees that may be required to complete the Work in accordance with the schedule. No exceptions shall be allowed for lack of performance, late material deliveries, or interference with other contractors possibly employed at the site or with the OWNER's personnel.
- G. The CONTRACTOR shall include the cost of the State of Maine sales tax in its Bid for all expenditures by the CONTRACTOR which will require payment of sales or use tax under State of Maine law.
- H. The CONTRACTOR shall obtain any state, county, or local building permits required in the performance of its Work. These permits include, but may not be limited to:
  - 1. City of Augusta Demolition/Building Permit
  - 2. Maine General Permit for Construction
- I. By submitting a Bid for the Work, the CONTRACTOR acknowledges to be entirely familiar with the requirements prescribed by the State of Maine that relate to the Work, with regulations prescribed by the United States Environmental Protection Agency with the rules and regulations of OSHA, and with local conditions, including weather, availability of supplies, and logistics. The CONTRACTOR further acknowledges itself to be entirely qualified to perform the Work described by these Specifications and the Drawings.
- J. The CONTRACTOR shall maintain the site of its activities completely free of refuse and debris at all times at their expense. The CONTRACTOR shall promptly comply with any directives from the OWNER, or its Representative, regarding housekeeping. The CONTRACTOR shall provide the appropriate containers at convenient locations for the disposal of paper cups, disposable personnel protection equipment and other items of trash. Upon completion of the Work and before final payment, the CONTRACTOR shall completely remove all tools, equipment, supplies, materials, structures, and debris from the site and leave the premises clean. Debris shall be removed to disposal locations off the site that are selected by the CONTRACTOR, and are permitted to receive the debris to be disposed, and prior approved by the ENGINEER. Refuse shall be accumulated for a minimum of weekly disposal.
- K. It is the CONTRACTOR's responsibility to perform all Work in a safe manner, and meet all applicable federal, state and local laws and those requirements imposed by the OWNER.
- L. All Work to be performed by the CONTRACTOR as a part of this project is regulated by the MEDEP for the protection of the environment. By acceptance of the terms of the Contract, the CONTRACTOR acknowledges that it is familiar with the rules and regulations of the MEDEP. The CONTRACTOR further acknowledges familiarity with, and accepts as a condition of this Contract, all of the terms, stipulations, and commitments pertaining to the

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Work. Questions concerning the permits or regulations shall be referred to the ENGINEER; the ENGINEER'S decision in all cases shall be final.

M. The CONTRACTOR shall provide an office trailer for use by both the Contractor and ENGINEER throughout the duration of the project. The office trailer shall include, but not be limited to, the following:

1. 400 square feet (minimum) of floor space.
2. Two (2) office desks with chairs and layout table.
3. Three (3) four-drawer, lockable file cabinets.
4. One (minimum) telephone line and telephone.
5. One (1) telephone answering machine.
6. One (1) telefax machine with dedicated telephone line.
7. Twelve (12) folding chairs and a folding table capable of seating eight (8) people comfortably.
8. Air conditioning and heat.
9. Water cooler.
10. CONTRACTOR shall clean the trailer on a weekly basis.

The CONTRACTOR shall be responsible for all utility connection and the cost of all utility maintenance services throughout the duration of the project. The OWNER shall be responsible for all documented long distance telephone calls from the ENGINEER's trailer.

N. Utilities

The CONTRACTOR shall be responsible for providing the following utilities for use at the project site throughout the duration of the project.

1. Electrical power shall be supplied to the CONTRACTOR and ENGINEER's office trailers.
2. Telephone line(s) shall be supplied to the CONTRACTOR's and ENGINEER's office trailers. The telephone lines provided for the ENGINEER shall also accommodate a telefax machine and a computer modem.
3. The CONTRACTOR shall make arrangements for obtaining water for drinking, dust control or other purposes in connection with the Work under this Contract.

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A sufficient number of chemical-type sanitary structures shall be provided for CONTRACTOR personnel on the project. Sanitary facilities shall be located near the points of Work, and shall be cleaned daily and adequately serviced.

O. Protection of Property

1. All property along the line of the Work, or which is in the vicinity of, or is in any way affected by the Work shall be protected and preserved from damage by the CONTRACTOR. Railroad tracks and bedding, trees, fences, water or gas pipes, sewers, drains, conduits, poles or wires for electrical purposes, or other structures shall not be moved without consent of the persons owning or controlling them; and in crossing or working near them, they shall be sustained securely in place and shall be so treated as to render their condition as efficient and permanent as before.
2. Property damaged shall be immediately repaired and restored at the expense of the CONTRACTOR, or if required, the CONTRACTOR shall make the necessary repairs. In case of failure on the part of the CONTRACTOR to restore such property as it deems necessary, the ENGINEER shall have repairs made and any cost thereof shall be deducted from payments due or which may become due to the CONTRACTOR under this Contract.

a. Existing Underground Utilities

The CONTRACTOR shall be responsible for determining the exact location of each utility within the area of excavation. The City of Augusta Fire Department (207-626-2421) and "Dig Safe" (1-888-344-7233) shall be contacted 72 hours prior to mobilization to the site. Care shall be exercised during such location work to avoid damaging and/or disrupting the affected utility. The CONTRACTOR shall be responsible for repairing, at his expense, damage or damages to any utility caused by its work occurring during the period of construction or within the period covered by its guarantee bond.

Unless otherwise noted, all underground utilities in actual line and/or grade of a proposed structure, requiring adjustment to permit proper installations, shall be adjusted by others during the construction operation in the CONTRACTOR's excavation without charge to the CONTRACTOR. However, in the event that sewer or water house services are found to obstruct the grade of the proposed Work, the CONTRACTOR may be directed to adjust such services as extra work, as provided for in the Contract.

P. Pre-Construction Conference

1. Before issuance of the Notice to Proceed, a Pre-construction Conference will be held to discuss items of significance, including:
  - a. construction schedule;
  - b. work sequence;
  - c. responsible personnel;

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- d. construction quality control;
  - e. procedures for handling shop drawings, schedules, “as-built” drawings, and other submissions;
  - f. processing Applications for Payment;
  - g. procedures for field decisions and Site Work Order Requests;
  - h. preparation of record documents;
  - i. applicable safety, health, environmental, security, fire protection, and operating requirements of the facility including all items contained in the Pre-Job Contractor Safety Conference Checklist;
  - j. use of premises;
  - k. office, work, and storage areas;
  - l. equipment and product deliveries;
  - m. housekeeping; and,
  - n. working hours.
2. Among those present at the Conference shall be a representative for the OWNER, the ENGINEER, the CONTRACTOR and CONTRACTOR’S Superintendent and major Subcontractors.
  3. The ENGINEER will arrange for and organize the Preconstruction Conference.

Q. Progress Meetings

1. During the course of the Contract, progress meetings shall be organized and conducted by the ENGINEER, to discuss the progress of the Contract every other week. Meeting frequency may be modified at the discretion of the OWNER or ENGINEER. The CONTRACTOR, the OWNER’S representative, its Superintendent, appropriate Subcontractor Superintendents shall attend these meetings. The CONTRACTOR shall be fully responsible for any and all of the subcontractors and shall be responsible for subcontractor attendance and/or input into the meetings. The ENGINEER shall take the minutes of the progress meetings and a copy shall be furnished to the CONTRACTOR. These meetings may, at the ENGINEER’S discretion, be increased to weekly if progress is not satisfactory or if coordination problems should arise. All meetings will be digitally recorded for record purposes.
2. The construction schedule shall be updated for each progress meeting. The updated schedule shall be furnished to the ENGINEER listing all parts of Work and providing the planned start and completion date for each part of Work. The schedule completion date shall conform to the contract completion date.
3. A special meeting shall be held when and if a problem or deficiency is present or likely to occur. The attendees at this meeting shall be specific to the incident. The purpose of the meeting shall be to define and resolve the problem or Work deficiency.

C. Weekly Progress Schedule

1. The CONTRACTOR’S Site Superintendent shall submit on a weekly basis to the ENGINEER or the CQA Manager a schedule of anticipated Work for the following

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week. This schedule shall be submitted by 12 p.m. (noon) on each Friday, and shall be updated as necessary if the CONTRACTOR'S anticipated Work is altered.

**PART 2 – PRODUCTS**  
(not used)

**PART 3 – EXECUTION**  
(not used)

**END OF SECTION**

SECTION 01065  
HEALTH AND SAFETY

**PART 1 - GENERAL**

1.1 SECTION INCLUDES

- A. Furnishing all labor, equipment, and materials, to perform operations in connection with worker health and safety protection for all persons who may be affected during the conduct of the Work.
- B. The minimum health and safety requirements and contingency measures for work to be undertaken in this Contract whenever waste materials are handled or exposed during the course of the Work.

1.2 REFERENCES

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.
  - 1. Occupational Safety and Health Administration. "29 CFR 1910, General Industry Standards, Title 29 CFR 1926, Construction Industry Standards." Department of Labor, Occupational Safety and Health Administration.
  - 2. Maine Department of Environmental Protection (MEDEP) Chapter 425 Asbestos Management Regulations dated May 29, 2004.
  - 3. *Final Report - Asbestos Demolition Impact Survey for the Former American Tissue Mill Complex Located in Augusta, Maine.* prepared by Summit Environmental Consultants, Inc., October 17, 2008.
  - 4. *Final Phase I Environmental Site Assessment, American Tissue, Augusta, Maine.* prepared by MACTEC Engineering and Consulting, Inc., June 2008.

1.3 SITE HAZARDS

- A. Previous environmental assessments indicated the presence, or possible presence, of the following materials/contaminants of concern at the Site:
  - VOCs (soil, sediment, and ground water)
  - RCRA metals
  - Asbestos (interior and exterior ACM)
  - Hazardous wastes and residues
  - Universal Wastes
  - Special Wastes (lead-based painted building materials)
  - Heating Oil
  - Miscellaneous chemicals
  - Wastewater Treatment Plant sludge and residual liquid



SECTION 01065  
HEALTH AND SAFETY

- B. Other hazards may exist that are typical of a construction/demolition environment. These hazards may be one or more of the following:
- Moving equipment.
  - Unknown structural integrity of buildings and roofs.
  - Environmental (weather) conditions.

1.4 DESCRIPTION OF WORK

- A. The Contractor shall develop and implement a Contractor's Health and Safety Plan (CHASP) for all workers engaged in the Work under this Contract. The purpose of the CHASP is to establish site-specific health and safety requirements for protecting the health and safety of personnel during activities conducted on site.

The CHASP shall address the exposure to demolition debris, liquids, waste, etc. and handling unknown materials. The CHASP will address, but may not be limited to, routine site activities, and excavation safety and contingency measures for foreseeable instances that could pose a serious health hazard. The CHASP shall address Contractor and Subcontractor(s) worker protection and their activities at the site.

- B. Contractor and Subcontractor personnel working on site shall be required to use basic protective equipment consisting of suitable work clothing as dictated by type of work and weather including, hard hats, steel-toed and steel-shank safety boots, and any other protective equipment applicable or required for the task being performed (e.g., work gloves, eye and/or ear protection, etc.).
- C. The Contractor shall provide and ensure the use of all health and safety equipment including protective clothing, respirators and monitoring instruments as identified in the Contractor's HASP.
- D. The Contractor shall designate a person as Site Safety Officer (SSO) who is trained in first aid, safety and protective equipment, and air monitoring instruments. The SSO shall be responsible for monitoring for safe working conditions and overseeing that the appropriate safety and protective equipment is available at the site.
- E. The Contractor shall provide such equipment and medical facilities as are necessary to supply first aid to anyone who may be injured in connection with the Work and shall provide for the capability of immediate removal and hospitalization, if required.

1.5 SUBMITTALS

- A. A copy of the CHASP will be submitted to the Engineer prior to the Pre-Construction meeting. In addition to items defined in Description of Work herein, the CHASP must include use of protective clothing. Training will not be provided by the Owner or the Engineer. The CHASP shall also include, but not be limited to, contingency measures, hospital map and medical response telephone numbers, and general safety considerations.

SECTION 01065  
HEALTH AND SAFETY

**PART 2 - PRODUCTS**

2.1 CLOTHING AND EQUIPMENT

- A. Clothing and equipment must conform to the OSHA and MEDEP requirements as indicated in the applicable standards.

**PART 3 - EXECUTION**

3.1 INSPECTION

- A. The Contractor shall become thoroughly familiar with the site and note all conditions that may influence the work of this Section.

3.2 HEALTH AND SAFETY PLANNING AND IMPLEMENTATION

- A. The Contractor is responsible for implementing all aspects of the CHASP.
- B. The Contractor shall visibly monitor the work area and the perimeter of the site for air emissions (dust).
- C. The Contractor shall require that workers who will be engaged in work at the site attend a health and safety review meeting prior to commencement of site activities and weekly thereafter.

3.3 DISPOSAL

- A. PPE and associated materials used and wastes generated during the work (i.e., protective clothing, disposable equipment) will be disposed by the Contractor.

**- END OF SECTION -**

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MEASUREMENT AND PAYMENT

**PART 1 – GENERAL**

**1.01 GENERAL**

- A. Payment for Work performed under this Contract shall be made as set forth herein under the individual Bid Items contained within the Bid Form and in accordance with the terms and conditions.
- B. If a Contract is awarded on a combination of Items, other than the total, the Work performed shall be complete and operable with each Item standing alone and in conformance with all provisions of the Construction Documents.
- C. The Work included under each Item shall consist of providing and installing the materials and/or equipment, complete, as enumerated below. Payment for each Item will be made at the Lump Sum bid in accordance with the provisions of Sections 1.02 and 1.03 of this Section.
- D. The CONTRACTOR shall include in the Lump Sum Bid a breakdown of applicable Bid Items listed in the Bid Form.
- E. Work Items included in the Bid Form breakdown schedule of prices are described in the following paragraphs.

**1.02 BID BREAKDOWN ITEMS**

- A. Mobilization/Demobilization
  - 1. Mobilization shall consist of the furnishing of all Work, materials and operations required for the assembling and setting up for the project, including, but not limited to initial movement of personnel to the project site; establishment of field offices for the CONTRACTOR and OWNER, or its Representative; establishment of water supply, electrical, telephone, and other utilities; construction of sanitary and other facilities required by the Specifications and state or local regulations; moving on and off site all construction equipment, hauling units, demolition equipment and tools required to complete the Work; all other Work and operations which must be performed prior to beginning Work on compensable Items of Work at the project site; and the cost of required insurance and bonds and any other initial expenses required including, but not limited to submittal of obtaining local permits (excavation and demolition), schedules, site safety plan and material analysis. Mobilization shall also include snow plowing/removal including off-site transportation as necessary. Demobilization shall consist of, but not be limited to removal of the furnishings of all Work, material, and equipment required for performing the Work. . Price for this Item shall be included as a lump sum in the Bid Form as Bid Breakdown Item 1.

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MEASUREMENT AND PAYMENT

B. Erosion and Sediment Control

1. Work under this Item includes, but is not limited to furnishing, installing, maintaining, and removing silt fence at locations shown on the Drawings; furnishing, installing, and maintaining stormwater and sediment controls. Item also includes isolation of existing catch basins and flood water management. Materials under this Item include, but are not limited to, silt fence, check dams and hay bales. Price for this Item shall be included as a lump sum, as specified in the Bid Form as Bid Item 2.

C. Asbestos Removal and Disposal

1. Work under this Item includes, but is not limited to, furnishing labor, materials and equipment for regulatory agency notification, asbestos abatement project design, friable and non-friable asbestos removal and disposal, and final clearance inspection and sampling. All work shall be in accordance with MEDEP, OSHA and USEPA regulations. Price for this Item shall be included as a lump sum, as specified in the Bid Form as Bid Item 3.

D. Wastewater Treatment Plant Liquid Removal and Disposal

1. Work under this Item includes, but is not limited to, furnishing labor, materials, equipment for the removal and off-site disposal of liquid contained within the Wastewater Treatment Plant. The CONTRACTOR will be responsible for all costs associated with disposal characterization and permitting (if required). If discharge Price for this Item shall be included as a lump sum, as specified, in the Bid Form as Bid Breakdown Item 4.

E. Wastewater Treatment Plant Sludge Removal and Disposal

1. Work under this Item includes, but is not limited to, furnishing labor, materials, equipment for the removal and proper disposal of sludge contained within the Wastewater Treatment Plant. Price for this Item shall be included as a lump sum, as specified, in the Bid Form as Bid Breakdown Item 5.

F. Identified Hazardous Waste, PCB and Universal Waste Removal and Disposal

1. Work under this Item includes, but is not limited to, furnishing labor, materials, equipment and laboratory analysis for the removal, containerization, disposal characterization analysis, transportation and disposal of all hazardous, Universal and special wastes and residues identified within these Project Documents. Price for this Item shall be included as a lump sum, as specified, in the Bid Form as Bid Breakdown Item 6.

G. Liquid Removal and Disposal

1. Work under this Item includes, but not limited to, furnishing labor, materials, and equipment for the removal, containerization, transportation and disposal of all

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MEASUREMENT AND PAYMENT

liquids. Liquids include cisterns, floor trenches pits and equipment reservoir contents. Price for this Item shall be included as a lump sum, as specified, in the Bid Form as Bid Breakdown Item 7.

H. Draining, Content Disposal/Recycling, Cleaning and Sealing of Number 6 Oil Piping

1. Work under this Item includes, but is not limited to, furnishing labor, materials and equipment to access, drain and clean piping and equipment containing Number 6 Oil associated with the Boiler House. Price including furnishing, fabrication and installation of a blank off plate for the main feed line from the underground storage tank. Price for this Item shall be included as a lump sum, as specified, in the Bid Form as Bid Breakdown Item 8. Removal and disposal of piping will be paid for under Bid Item 8.

I. Removal/Demolition of Tanks, Equipment, Materials

1. Work under this Item includes, but is not limited to, furnishing labor, materials and equipment for the removal/demolition, segregation (as necessary) transportation and off-site disposal/recycling/reuse of tanks (ASTs), totes, containers, equipment, solid waste, stored materials and supplies, miscellaneous debris, etc. for the site. These items will be pre-cleaned as necessary prior to removal. Price for this Item shall be included as a lump sum, as specified in the Bid Form as Bid Item 9.

J. Building and Foundation Demolition/Disposal

1. Work under this Item includes, but is not limited to furnishing labor, materials and equipment to demolish/remove, segregate, transport and dispose/recycle off site all site buildings, structures, foundations (to ground level or as indicated by the Engineer) and associated components, as specified in the Drawings and these Specifications. Price for this Item shall be included as a lump sum in the Bid Form as Bid Breakdown Item 10.

K. Backfilling

1. Work under this Item includes, but is not limited to the furnishing, hauling, placing and grading of granular backfill within the former foundations, basements, pits, trenches, and other site depressions. Price for this Item shall be included as a lump sum, as specified, in the Bid Form as Bid Breakdown Item 11.

J. Site Restoration

1. Work under this Item includes, but is not limited site clean-up, final grading of the site to drain, furnishing and placing of topsoil, grass seed and mulch over disturbed and backfilled areas. Price for this Item shall be included as a lump sum in the Bid Form as Bid Breakdown Item 12.

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MEASUREMENT AND PAYMENT

K. Site Security and Fencing

1. Work under this Item includes, but is not limited to the furnishing and installing of chain link security fencing with gates in the location indicated on the drawing. Item also includes furnishing and installing orange snow fencing around former PCB containing transformers as indicated on the drawings. security and traffic control personnel, barriers and signage as necessary will be paid for under this item. Price for this Item shall be included as a lump sum in the Bid Form as Bid Breakdown Item 13.

1.03 BID ALLOCATION

A. Non-Identified Hazardous Waste Removal

1. The CONTRACTOR shall allocate \$25,000.00 if needed for the removal and disposal of encountered hazardous waste materials **unidentified** by previous site investigations and the Response Team actions. If previously unidentified materials are encountered, the CONTRACTOR will submit a lump sum price to the ENGINEER for removal and disposal. Subject to approval by the OWNER, the material will be removed/disposed by the CONTRACTOR.
2. Following completion of the removal action, the allocation will be reduced by the lump sum amount and remain available should additional previously unidentified hazardous materials are encountered.

1.04 BID ALTERNATES

A. Deduct Alternate No. 1 – Disposal of Wastewater Treatment Plant Liquid at the Local Publicly Owned Treatment Works (POTW)

1. The CONTRACTOR shall provide a Deduct price in the event Wastewater Treatment Plant liquid can be disposed at and treated by the local POTW. The CONTRACTOR will be responsible under the Base Bid Base Bid (Item 4) for removal and transport/pumping of liquid to the POTW or nearest acceptable sanitary sewer manhole(ove). Price for this Item shall be included as a lump sum price, as specified, in the Bid Form as ADD Alternate Item 1.

B. Deduct Alternate No. 2 - Disposal of Wastewater Treatment Plant Sludge at the former Statler Tissue Landfill

1. The CONTRACTOR shall provide a Deduct price in the event Wastewater Treatment Plant sludge can be disposed at the former Statler Tissue landfill in Augusta. The CONTRACTOR will be responsible under the Base Bid (Item 5) for removal and transport of sludge to the landfill.

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MEASUREMENT AND PAYMENT

- C. Deduct Alternate No. 3 - Disposal of Non-Friable Asbestos Containing Materials (ACM) at the former Statler Tissue Landfill
1. The CONTRACTOR shall provide a Deduct price in the event Non-Friable ACM (i.e., transite board, roofing materials) can be disposed at the former Statler Tissue landfill in Augusta. The CONTRACTOR will be responsible under the Base Bid (Item 3) for removal and transport of non-friable ACM to the landfill.
- D. Deduct Alternate No. 4 – Chain Link Fence
1. The CONTRACTOR shall provide a Deduct price to furnish, install, maintain and remove a temporary chain link fence, gates and posts in lieu of chain link fencing included in Item 13 above. This temporary fence will be removed upon completion of the project.

1.05 **PAYMENT PROCEDURE**

- A. Breakdown of Lump Sum Items:
1. Within ten (10) calendar days after the OWNER issues a Notice of Award, the CONTRACTOR shall submit to the OWNER, in a form approved by the OWNER, a complete, detailed breakdown of all lump sum and fixed unit price items awarded; i.e., a schedule of values. The detailed breakdown shall include quantities with all anticipated material and labor costs for individual Work Items required to complete the lump sum and fixed unit price Item. The CONTRACTOR shall revise the project breakdown if the OWNER so requests. Extra work will be paid in accordance with the terms and conditions.
  2. Payments shall be made in accordance with the Contract terms and conditions. The CONTRACTOR may request periodic payments on a monthly basis in the form of an invoice (Refer to General Conditions). A monthly meeting will be conducted to discuss the invoice. Submission of the invoice shall be made to the OWNER. However, all payment requests shall be made on the basis of the approved breakdown and accompanied by all supporting documentation required herein.
  3. The Contract lump sum price for Mobilization/Demobilization (Mobilization) will be payable to the CONTRACTOR in accordance with the following schedule:
    - Upon CONTRACTOR mobilization to the Site: 35%
    - Upon completion of 50% of the Base Bid Work in accordance with an approved Application and Certification for Payment: 25%
    - Upon completion of 75% of the Base Bid Work in accordance with an approved Application and Certification for Payment: 15%
    - Upon final completion and demobilization: 25%

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MEASUREMENT AND PAYMENT

4. No payment shall be made for materials or equipment that are provided in a routine manner as Work progresses. Such items are, and are not limited to, concrete, fuel, tools, dust preventive materials, protective devices such as tarps, etc., CONTRACTOR's equipment rental, operating, or repair costs, lumber, stone, gravel, sand, or any material that is consumed as Work progresses.

**PART 2 - PRODUCTS**

(not used)

**PART 3 - EXECUTION**

(not used)

**END OF SECTION**



01430  
ENVIRONMENTAL PROTECTION

**PART 1 - GENERAL**

**1.01 DESCRIPTION**

- A. The CONTRACTOR shall perform all Work in such manner as to minimize the polluting of air, water, or land, and shall, within reasonable limits, control noise and minimize the generation and disposal of solid waste materials, as well as other pollutants.

**1.02 PROTECTION OF LAND AREAS**

- A. Except for any Work, or storage area and access routes specifically assigned for the use of the CONTRACTOR, the land areas outside the limits of disturbance performed shall be preserved in their present condition.
- B. The CONTRACTOR shall confine its construction activities to areas defined for Work on the Drawings or specifically assigned for its use within the designated disturbed area. Storage and related areas and access required temporarily by the CONTRACTOR in the performance of the Work shall be coordinated with the ENGINEER.

**1.03 PROTECTION OF TREES AND SHRUBS**

- A. Except for trees, shrubs and other vegetation marked on the Drawings to be removed, the CONTRACTOR shall not deface, injure or destroy trees, shrubs, or vegetation nor remove or cut them without special authority. No ropes, cables, or guys shall be fastened to or attached to any existing nearby trees for anchorages.
- B. Any tree scarred or damaged by the CONTRACTOR's equipment or operations shall be restored as nearly as possible to its original condition.

**1.04 PROTECTION OF WATER RESOURCES**

- A. The CONTRACTOR shall control the disposal of fuels, oils, bitumens, calcium chloride, acids, alkalies, pesticides, herbicides, rodenticides, or other harmful materials, both on and off-site, and shall comply with applicable federal, state, and local laws concerning pollution of rivers and streams. Special measures shall be taken to prevent chemicals, fuels, oils, greases, bituminous materials, herbicides, and insecticides from entering public waters.
- B. Water used in on-site material processing, dust control and decontamination, and other wastewaters shall not be allowed to re-enter public waters.
- C. CONTRACTOR shall prevent the flow of surface water, through the use of temporary diversion berms, swales and ditches, from the site onto adjacent off-site properties. The CONTRACTOR shall review and comply with the requirements defined in the Erosion and Sediment Control Notes (see Drawings).

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ENVIRONMENTAL PROTECTION

**1.05 WASTE DISPOSAL**

- A. The CONTRACTOR shall place all general debris and waste in on-site storage areas and/or containers for subsequent off-site disposal by the CONTRACTOR. If any waste material is dumped in unauthorized areas, the CONTRACTOR shall remove the material and restore the area to the condition of the adjacent undisturbed areas.
- B. No material shall be burned on the project site. It shall be the responsibility of the CONTRACTOR to provide disposal of all waste materials in accordance with all state and federal regulations.

**1.06 DUST CONTROL**

- A. The CONTRACTOR shall maintain all demolition areas, stockpiles, access roads, waste areas, and all other work areas free from excess dust to such reasonable degree as to avoid causing a hazard or nuisance to others.
- B. Approved temporary methods for dust control consist of sprinkling of water or a dilute solution of water with a biodegradable surfactant (less than 0.05 percent), chemical treatment, or similar methods will be considered for dust control. Approval of such temporary methods must be granted by the ENGINEER prior to initiation.
- C. Dust control shall be performed as the Work proceeds and whenever a dust nuisance or hazard occurs, or as otherwise directed by the ENGINEER.

**1.07 EROSION CONTROL**

- A. The CONTRACTOR shall review and comply with the requirements defined in Section 02290 and the Erosion and Sediment Control Notes.

**1.08 CORRECTIVE ACTION**

- A. The CONTRACTOR shall, upon receipt of a notice in writing from the ENGINEER of any non-compliance with the foregoing provisions, take immediate corrective action in accordance with any and all federal, state, or local laws. If the CONTRACTOR fails or refuses to comply promptly, the ENGINEER may issue an order stopping all or part of the work until satisfactory corrective action has been taken.

**1.9 POST-CONSTRUCTION CLEANUP OR OBLITERATION**

- A. The CONTRACTOR shall, unless otherwise instructed in writing by the ENGINEER, obliterate all signs of temporary construction facilities such as temporary access roads, Work areas, structures, foundations of temporary structures, stockpiles of excess or waste materials, and other vestiges of construction prior to final acceptance of the Work. The disturbed areas shall be graded and filled and disturbed areas seeded with permanent vegetation.

01430  
ENVIRONMENTAL PROTECTION

**PART 2 - PRODUCTS**  
(not used)

**PART 3 - EXECUTION**  
(not used)

**END OF SECTION**

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TEMPORARY FACILITIES AND CONTROLS

**PART 1 - GENERAL**

**1.01 ACCESS AND DRAINAGE**

- A. The CONTRACTOR shall keep all natural drainage and water courses unobstructed or provide equal courses effectively placed, and prevent accumulations of surface water. The CONTRACTOR shall construct grade and stabilize access roads, and provide temporary mobilization, parking and storage areas for its use during construction within the areas shown on the Drawings.
- B. Stormwater or other ponded water encountered during construction activities shall be collected and disposed in the stormwater management pond, or as otherwise directed by the ENGINEER.
- C. Access roads and mobilization, parking, and storage areas shall be maintained in a stable and smooth condition throughout the life of the Contract.
- D. Erosion control shall comply with all applicable State of Maine regulations including requirements of the NPDES Notice of Intent to Discharge Stormwater from a Construction Activity permit.

**1.02 TEMPORARY SANITARY FACILITIES**

- A. The CONTRACTOR shall furnish and maintain the necessary temporary self-contained chemical type sanitary facilities in accordance with all applicable regulations. They shall be located near the points of Work and shall be cleaned daily and adequately serviced. The use of these facilities shall be available for the CONTRACTOR's employees as well as the OWNER and ENGINEER representatives and other project personnel on the site. Separate sanitary facilities are required for men and women; these facilities must be clearly marked.

**1.03 CONTRACTOR STORAGE AREA**

- A. A storage area(s) shall be designated by the OWNER on the project site for use by the CONTRACTOR for storage of materials, tools, equipment, office and other items necessary for construction. The exact limits of the storage area will be designated in the field by the OWNER'S representative. The CONTRACTOR shall be fully responsible for the preparation of this area, its maintenance, and its security, including fencing, watchmen, and other means of security. Under no circumstances will the OWNER or ENGINEER be responsible for the security of any property belonging to the CONTRACTOR, its subcontractors, or any of its Work forces. The CONTRACTOR shall, upon completion of the project, return the storage area(s) to the original condition. Disturbed areas shall be covered with topsoil and seeded and stabilized with permanent vegetation.

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TEMPORARY FACILITIES AND CONTROLS

1.04 **STAGING AREAS, STORAGE AND FIELD OFFICES**

- A. The CONTRACTOR may, during the course of this project, stage construction, store materials, or erect temporary field offices only within the Limits of Disturbance shown on the Drawings or as otherwise approved by the OWNER.
- B. Requirements for the field offices and utilities are specified in Section 01010 - SUMMARY OF WORK.

1.05 **TRUCKING**

- A. All trucks bringing to, or removing from the site, soil, loose materials or debris shall be loaded in a manner so as to prevent the dropping of materials on public or private off-site streets or roadways.
- B. At all points where trucks leave the project site and enter adjacent paved roadways, the CONTRACTOR shall provide and maintain a crew or other means necessary to prevent any mud or loose material from being carried onto such adjacent paved roadways. All exits from the site which will be utilized by hauling vehicles shall pass over a suitable, stabilized construction entrance.
- C. Soil, loose materials or debris deposited on the roadways due to contract activities shall be removed immediately.

1.06 **SNOW REMOVAL**

- A. The Contractor will be responsible for snow removal and stockpiling. Snow removal will be completed shall be performed as necessary and in a manner to allow for access of emergency vehicles and general site access.
- B. Silt fencing (or other ESC measure approved by the ENGINEER) will be erected prior to stockpiling of snow. ESC measures will be established between snow stockpiles and the adjacent Kennebec River.
- C. In the event that snow accumulates in quantities more than can be stockpiled on site, the City will provide an alternate location for snow stockpiling. The CONTRACTOR will be responsible for loading and trucking snow to the off-site location.

1.07 **ELECTRICAL AND WATER**

- A. The CONTRACTOR is responsible for furnishing necessary electrical power, lighting and water for the project.

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TEMPORARY FACILITIES AND CONTROLS

**PART 2 – PRODUCTS**  
(not used)

**PART 3 – EXECUTION**  
(not used)

**END OF SECTION**

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CONTRACT CLOSEOUT

**PART 1 - GENERAL**

**1.01 DESCRIPTION**

- A.. Upon completion of the Work and before a Certificate of Substantial Completion is issued by the ENGINEER to the CONTRACTOR, the Work site, storage areas, and other areas occupied by the CONTRACTOR during construction shall be cleaned, and all surplus and discarded materials, false Work, and rubbish placed thereon by the CONTRACTOR shall be removed by the CONTRACTOR. No separate payment will be made for clean-up as all such costs shall be included in the Bid.
- B. Record Documents
  - 1. Maintain, at the site, one set of the following record documents; record actual revisions to the Work.
    - a. Contract Drawings;
    - b. Specifications;
    - c. Addenda;
    - d. Change Orders and other Modifications to the Contract;
    - e. Reviewed Shop Drawings, product data, and samples;
    - f. Transportation and disposal manifests/documentation; and,
    - g. Asbestos abatement notifications, design, certifications and other required documentation of asbestos abatement activity
  - 2. Store Record Documents separately from documents used for construction.
  - 3. Record information concurrent with construction progress.
  - 4. Changes made by Addenda and modifications.
  - 5. Submit documents to OWNER with claim for final Application of Payment.
  - 6. Daily log of Work performed/completed.
  - 7. Workers log.

**1.02 CLOSEOUT PROCEDURES**

- A. When the CONTRACTOR considers that the Work is substantially complete, it shall submit a written request that certifies that the Construction Documents have been reviewed, the Work has been inspected, and that Work is complete in accordance with the Construction Documents and is ready for the ENGINEER's final inspection.
- B. CONTRACTOR shall provide to the ENGINEER all submittals in accordance with these Specifications or governing authorities prior to, or concurrent with the request for Certification of Substantial Completion.

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CONTRACT CLOSEOUT

- C. ENGINEER shall, within a reasonable time after receipt of a written request from the CONTRACTOR, conduct an inspection to determine the status of completion. If ENGINEER, determines that the Work is not complete, it shall notify CONTRACTOR in writing giving the reasons thereof. The CONTRACTOR shall remedy the deficiencies noted and submit certification to the ENGINEER for re-inspection.
- D. The CONTRACTOR shall submit project Record Documents to the OWNER with a claim for Final Invoice.
- E. Evidence of payment and release of liens shall be performed in accordance with the requirements provided in the Construction Documents.

**PART 2 - PRODUCTS**

(not used)

**PART 3 - EXECUTION**

(not used)

**END OF SECTION**



**DIVISION 2 – SITE WORK**

SECTION 02060  
BUILDING DEMOLITION

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. Demolition of all structures and removal and proper disposal/recycling of materials from site.
- B. Removal and proper disposal of all equipment, furnishings, materials, tanks, piping, transformers and pads, etc. contained within buildings or stored/located on the site.
- C. Demolition and removal/proper disposal of walls, foundations, tanks, etc. to ground level (or as indicated).
- D. Disconnecting and capping of utilities including No. 6 Oil pipe at railroad tracks.

**1.02 REGULATORY REQUIREMENTS**

- A. Conform to applicable regulations and these specifications for demolition of structures, safety of adjacent property, hazardous materials removal, dust control, runoff control and disposal.
- B. Obtain required permits from authorities.
- C. Notify Dig Safe and affected utility companies before starting work and comply with their requirements.
- D. Do not close or obstruct roadways.
- E. Remove all liquids and asbestos containing, hazardous or contaminated materials prior to demolition of structures.
- F. Building components are assumed to contain lead based paint.

**1.08 SEQUENCING**

- A. Sequence work under the provisions of Section 01010, paragraph 1.04.

**PART 2 - PRODUCTS**

**2.01 FILL MATERIALS**

- A. Fill Material: Granular fill or crushed inert fill, as specified in Section 02232.

**PART 3 - EXECUTION**

**3.01 PREPARATION**

- A. Provide, erect, and maintain temporary barriers and security devices including perimeter fencing.
- B. Provide, erect and maintain erosion and sediment controls.

SECTION 02060  
BUILDING DEMOLITION

- C. Provide, erect and maintain fencing around electrical transformers in areas designated on the Drawing.
- D. Protect existing landscaping materials, river and appurtenances, which are not to be demolished.
- E. Prevent movement or settlement of demolished structures.
- F. Contact DigSafe and mark location of utilities.

3.02 **DEMOLITION REQUIREMENTS**

- A. Cease operations immediately if adjacent riverbank appears to be in danger of collapse or demolition activities encroach on the river. Notify the Engineer. Do not resume operations until directed.
- B. Conduct operations with minimum interference to public or private accesses.
- G. Do not traverse, infringe upon or limit access to adjacent properties without approval.
- H. Do not traverse within the area designated for installation of snow fence on the drawing.
- E. Provide dust control as necessary. Provide hoses and water connections for this purpose.

3.03 **DEMOLITION**

- A. Disconnect and cap designated utilities within demolition areas.
- B. Remove all asbestos, liquids, materials, containers wastes, hazardous materials, tanks, equipment, fixtures, etc. from structures prior to demolition.
- C. Decontaminate (power wash) building components in locations indicated on the Drawings.
- D. Remove all structures, including foundation walls to existing ground level or where so designated by the Engineer. Remaining slabs will include, but not limited to, basement (below grade) level slabs. The wastewater treatment plant tank bottom and the paper machine building ground floor will remain following decontamination.
- E. Remove, clean and properly dispose all transformer pads.
- F. Empty and clean/decontaminate pipes, trenches and pits located within demolition area. Demolish to ground level and backfill with granular fill in accordance with Section 02200.
- G. Backfill open pits, basements/crawl spaces and holes caused as a result of demolition in accordance with Section 02200.
- H. Rough grade and compact areas affected by demolition to maintain site grades and contours.
- I. Remove demolished materials from site.
- J. Do not burn or bury materials on site. Leave site in clean condition.

SECTION 02060  
BUILDING DEMOLITION

3.04 DISPOSAL

- A. Properly segregate, containerize (as necessary), transport and dispose all demolition debris and materials.
- B. The Contractor is responsible for payment of all tipping fees and coordination with an approved landfill and its operating staff. In the event Deduct Alternates 2 and/or 3 are selected, tipping fees for those materials will not be assessed.
- C. Processed demolition debris may be used to backfill excavation(s) remaining following building demolition. Refer to Section 02232 for gradation and compaction specifications for processed (crushed) demolition material. Should excess crushed materials remain following completion of backfill, the Contractor will be responsible to remove and dispose of this material.
- D. Painted building components and surfaces are assumed to contain lead based paint. Under current federal and state regulations, LBP does not have to be removed from a structure prior to demolition or removal of specific building components. The following regulations/requirements must be followed in relation to disturbance of LBP during demolition or renovation.
  - 1. OSHA 29 CFR 1926.62 requires that an employer protect their personnel from exposure to lead dust during construction or demolition. While primarily an issue for the demolition or abatement contractor, the Owner is responsible to notify all parties involved in the work of the knowledge or presumption that painted surfaces may contain lead.
  - 2. MEDEP requires that building components with LBP be disposed of in a licensed Construction and Demolition (C&D) Landfill, and that a manifest documenting the disposal of this material be provided to the Owner.
  - 3. If LBP is removed from surfaces prior to demolition, the resulting waste must be analyzed using a toxicity characteristic leaching procedure (TCLP) test to determine whether the residue is considered a hazardous waste. If TCLP results indicate levels of leachable lead in excess of 5 parts per million (ppm), the resulting waste must be disposed of as a hazardous material.

**END OF SECTION**

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**PART 1 - GENERAL**

**1.01 SUMMARY**

- A. This Section includes furnishing labor, materials, equipment, supplies, and performing all operations necessary to complete the removal of asbestos containing materials (ACM) by competent persons trained, knowledgeable and qualified in the techniques of asbestos abatement, handling and disposal of ACM and asbestos contaminated materials and the subsequent cleaning of contaminated areas, and complying with all applicable federal, state, and local regulations in accordance with the attached drawings and these specifications.
- B. The work to be performed under this Contract consists of the removal and disposal of all friable and non-friable ACM from structures/buildings prior to demolition. Previously identified ACM is indicated in the table at the end of this Section. Estimated quantities of ACM provided in this table are for informational purposes only; the Contractor is responsible for determination actual quantities of identified ACM to be removed.
- C. The CONTRACTOR will be responsible for preparation of a site-specific asbestos abatement project design and work plan for each work area. An Asbestos Abatement Design Consultant licensed by the MEDEP will prepare the design.
- E. The CONTRACTOR will be responsible for the submission of all appropriate federal and state notifications and associated fees.
- F. The CONTRACTOR will be responsible for providing an independent air monitor for all visual evaluations and air clearances.
- G. The CONTRACTOR will be responsible for conducting personal monitoring on their employees during abatement activities.

**1.02 REFERENCES**

- A. Code of Federal Regulations (CFR) Publications:
  - 1. 29 CFR 1910.1001 Industry Standard for Asbestos
  - 2. 29 CFR 1910.134 Industry Standard for Respiratory Protection
  - 3. 29 CFR 1910.120 Hazard Communication
  - 4. 40 CFR 61 Federal Register Vol. 49, April 5, 1984 Subpart M, National Emission Standards for Hazardous Air Pollutants (NESHAPS) - Asbestos

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- B. Applicable State Regulations.
1. 06-096 State of Maine, Department of Environmental Protection, Chapter 425, Asbestos Management Regulations (effective date: May 29, 2004).
  2. CMR 411 State of Maine, Non-Hazardous Waste Transporter Licensing Regulations.
  3. CMR 405 State of Maine, Solid Waste Management Regulations.
- C. *Final Report - Asbestos Demolition Impact Survey for the Former American Tissue Mill Complex Located in Augusta, Maine* prepared by Summit Environmental Consultants, Inc., October 17, 2008 (includes asbestos survey and bulk sample analysis results).

1.03 **SUBMITTALS**

A. Contractor Submittals

Submittals will be received by the ENGINEER in accordance with this section before material or equipment is purchased or work is performed. The CONTRACTOR will submit to the ENGINEER, for review, two copies of the information required herein. The adequacy and accuracy of submittals and their compliance with contract documents are the responsibility of the CONTRACTOR. All reviewing actions taken by the OWNER will in no way relieve the CONTRACTOR of his/her quality control requirements.

B. General

The CONTRACTOR will submit:

1. A list of proposed subcontractors with their addresses, specialties and qualifications.
2. Certificate of Insurance indicating coverage for asbestos abatement work.

C. Work Practices and Procedures

1. Design and Work Plan: The CONTRACTOR will be responsible for preparation of a site-specific asbestos abatement project design and work plan for each work area. An Asbestos Abatement Design Consultant licensed by the MEDEP will prepare the design.

The CONTRACTOR will submit a written work plan and sketches of the work procedures to be used in the removal, disposal and replacement of materials. The abatement plan will include location of asbestos control area, decontamination area, equipment decontamination enclosure, interface of trades involved in the construction, sequencing of asbestos-related work, disposal plan, type of wetting

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agent and sealant to be used, site specific air monitoring plan, personal air monitoring program and a description of the method to be employed to reduce fiber releases. For each work area, the abatement plan will show point of controlled access to the building for transporting ACM from the regulated area to the exterior of the building. The abatement plan will show auxiliary make-up air points, location of HEPA exhaust ventilation units, location of HEPA exhaust and location of pressure differential monitor(s).

2. Health and Safety Plan: The Health and Safety Plan will include, but not be limited to, the following:
  - a. Types, quantities and locations of fire extinguishers.
  - b. Electrical information.
  - c. Type of eye and ear protection.
  - d. Locations of emergency exits.
  - e. Types, quantities and locations of first aid kits.
  - f. Times and use of hard hats.
  - g. Safety training afforded employees.
  - h. Personnel decontamination procedures.
  - i. Types and level of respiratory protection.
3. Project Log: The CONTRACTOR shall maintain a Project Log throughout the project. The log will contain notes concerning accidents that may happen and deviation from standard work procedures and project information. At project completion, the original log will be submitted to the Engineer.
4. Work Schedule: A detailed work schedule will be prepared for the project including work hours, minimum daily staffing and goals and objectives.
5. Waste Disposal: The CONTRACTOR will identify the proposed waste disposal landfill for the project and provide a copy of the state approval certification.
6. Permits: The CONTRACTOR will provide a list of all permits, licenses or manifests to be applied for, including notification of the MEDEP.
7. The CONTRACTOR shall prepare, for signature by the Owner, a MEDEP *Project Monitoring Disclosure Form*.
8. The CONTRACTOR shall prepare for signature by the Owner, a MEDEP *Asbestos Consultant Independent Business Relationship Disclosure Form*.

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- D. Product and Equipment Data: Submit manufacturers' literature, catalog cuts and product data sheets for products and equipment to be used in this abatement project. Attach Material Safety Data Sheets to Product Data Sheets.

Material Safety Data Sheets for products containing chemicals the Contractor may be utilizing on the project will be submitted. The contractor will submit to the Consultant two copies of the Material Safety Data Sheets attached to the Product Data sheet for new products brought on site for which a Material Safety Data Sheet has not been previously submitted. This submission does not relieve the Contractor of the OSHA requirements of contractor responsibilities with reference to the Material Safety Data Sheets nor does it relieve the Contractor of responsibility for the subsequent proper use of the product.

- E. Personnel, Training, Medical, and Respiratory Fit Test Documentation

The Contractor will submit the following:

1. Experience Summary: Submit name and experience summary of proposed project supervisors and foremen.
2. Respirator Protection Program: Submit a summary of the Contractor's Respiratory Protection Program as required by 29 CFR 1910.1001 and 1926.58.
3. Personnel: Submit copies of Personnel Training Certificates, Medical Examinations, Medical Questionnaires, and Respirator Fit Tests:
  - a. Summary Sheet: Submit a summary sheet of employees, listed in alphabetical order, to include name, social security number, classification, MEDEP certificate number and dates of training, medical examinations, medical questionnaires and respirator fit tests.
  - b. Medical Examinations: Submit proof of medical examinations as required by 29 CFR 1910.1001. If the employee elects not to have a medical examination, submit a notarized statement from the employee on the non-election.
  - c. Medical Questionnaire: Submit a notarized statement that medical questionnaires have been administered in accordance with 29 CFR 1926.1101-Appendix D.
  - d. Respirator Fit Tests: Submit proof of respirator fit testing for employees to be assigned to the project. Fit Testing will be in accordance with 29 CFR 1910.1001-Appendix C and 1926.1101-Appendix C.

- F. Asbestos Abatement Contractor's License: Submit a copy of the abatement



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CONTRACTOR'S MEDEP license and the name of the project Contract Representative.

- G. Independent Asbestos Abatement Project Monitor (APM): Submit the name, associated firm and copy of MEDEP license of the independent APM.

1.04 **QUALITY ASSURANCE**

- A. Job Site References: The contractor will have on site at all times at least one copy of the following:

1. Project Manual including Drawings and Specifications.
2. Guidance for Controlling Asbestos Containing Materials in Building (EPA 560/5-85-024), June 1985.
3. Asbestos Waste Management Guidance (EPA/530-SW-85-007), May 1985.
4. A Guide to Respiratory Protection for the Asbestos Abatement Industry (EPA-560-OPTS-86-001), September 1986.
5. Federal Register - Part II - OSHA - 29 CFR Parts 1910 and 1926.
6. 40 CFR Part 61 Subpart M - NESHAPs Asbestos
7. 06-096 State of MEDEP, Chapter 425, Asbestos Management Regulations (effective date January 14, 2003).

- B. Safety Compliance: The contractor will in addition to detailed requirements of this specification:

1. Comply with laws, ordinances, rules and regulations of federal, state, regional and local authorities regarding handling, storing, transporting and disposing of asbestos waste materials;
2. Comply with the applicable requirements of the current issue of 29 CFR 1910.1001; 40 CFR 61, Subparts M and 29 CFR 1926;
3. Submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting the work. Where the requirements of this specification and referenced documents vary, the most stringent requirement will apply.

- C. Respirator Program: The CONTRACTOR will establish a respirator program as required by 29 CFR 1910.1001 and 1926.58. This program will comply with all paragraphs of 29

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CFR 1910.134.

1.05 **AUTHORITY TO STOP WORK**

- A. The ENGINEER has the authority to stop the abatement work at any time that conditions are not within the specifications and applicable regulations. The stoppage of work will continue until conditions have been corrected and corrective steps have been taken to the satisfaction of the Owner and the ENGINEER. Standby time required for the CONTRACTOR'S personnel and the APM to resolve violations will be at the CONTRACTOR'S expense.
- B. Stop-Work Airborne Fiber Levels will be as follows:
  - 1. Inside Work Area (Removal): 0.5 f/cc (with wet methods).
  - 2. Outside Work Area: 0.01 f/cc as measured in clean room and/or the HEPA exhaust.
- C. Stop work orders will be issued for, but not be limited, to the following:
  - 1. Excessive airborne fiber concentrations inside and/or outside work area.
  - 2. Breaks in containment barriers.
  - 3. Loss of negative air pressure (0.02 inches of water - minimum negative pressure to be maintained).
  - 4. Failure of workers to wear appropriate respiratory protection.

**PART 2 - PRODUCTS**

2.01 **MATERIALS**

- A. Polyethylene sheeting for walls and stationary objects will be a minimum of 6-mil thick. For critical barriers and all other uses sheeting of at least 6-mil thickness will be used in widths selected to minimize the frequency of joints.
- B. Polyethylene sheeting utilized for worker decontamination enclosure and ground floor exterior windows will be opaque white or black in color.
- C. Clear acetate will be used for viewing windows and will be at least 24 inches by 24 inches in size.

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- D. Disposal bags will be of 6-mil polyethylene, pre-printed with labels. Label Specifications will comply with 29 CFR 1910.1001 and 1926.58 and MEDEP regulations.
- E. Disposal drums (if used) will be metal or fiberboard with locking ring tops.
- F. Warning signs and labels will be provided at approaches to asbestos control areas containing concentrations of airborne asbestos fibers. Signs will be located at such a distance that personnel may read the signs and take the necessary protective steps required before entering areas. The Contractor will provide labels and affix to asbestos materials, scrap, waste, debris, and other products contaminated with asbestos. Labels and signs will comply with 29 CFR 1910.1001 and 1926.58.
- G. The surfactant wetting agent will be a 50/50 mixture of polyoxyethylene ether and polyoxyethylene ester, or equivalent, mixed in a proportion of 1 fluid ounce to 5 gallons of water or as specified by manufacturer. Where work area temperature may cause freezing of the amended water solution, the addition of ethylene glycol in amounts sufficient to prevent freezing is permitted.
- H. Spray Adhesive (if used) will not be noxious or toxic to workers or subsequent users of the area. Spray adhesive will not contain methylene chloride.

2.02 **GENERAL EQUIPMENT TO BE PROVIDED BY CONTRACTOR**

- A. The Exhaust Ventilation Unit will be in accordance with ANSI Z9.2. and equipped with absolute (HEPA) filters. This equipment will be sufficient to maintain a minimum pressure differential of 0.02 inch of water column relative to adjacent, non-abatement areas. Filters on vacuum and exhaust equipment will conform to ANSI Z9.2.

The Exhaust Ventilation Unit will be equipped with the following:

- 1. A magnehelic gauge to monitor the unit's air pressure difference across the filters.
  - 2. An audible alarm with or without flashing red light for unit shutdown.
  - 3. A yellow warning light to indicate a decrease in airflow due to filter loading.
- B. Negative pressure automatic recording instrument(s) with a continuous paper printout will be provided and used to record negative pressure. The instrument(s) will have an alarm available.
- C. Respirators will be selected from those approved by the National Institute for Occupational Safety and Health (NIOSH), Department of Health and Human Services.

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- D. Workers and authorized visitors exposed to airborne concentrations of asbestos fibers will be provided with disposable, protective, wholebody clothing, head coverings, gloves, and foot coverings, and use of tape. Protective clothing will be provided to all workers and authorized visitors in sizes adequate to accommodate movement without tearing. Goggles will be provided in accordance with ANSI Z87.1 to personnel engaged in certain asbestos operations when a full-face respirator is not required.
- E. The CONTRACTOR shall provide water and electrical service as necessary to perform asbestos abatement related activities.

2.03 **ENCAPSULANTS**

- A. A spray type encapsulant will be used as a lockdown of exposed surfaces and piping. The encapsulant will be able to withstand heat and have the capacity to be applied pre-heated.

2.04 **ELECTRICAL**

- A. All electrical installations will be accomplished under the direction of a Licensed Master Electrician.
- B. Ground fault circuit interrupters (GFCI) will be provided for all electrical equipment, to be installed outside the work area so that there is no live electrical wiring not protected by GFCI inside the work area. The Contractor will furnish and install a portable GFCI Power Supply Board and receptacles including the following:
  - 1. All circuits individually GFCI-protected;
  - 2. Weatherproof enclosure NEMA 3 (rain-tight) with receptacle covers;
  - 3. Construction durable, 16-gauge steel construction;
  - 4. At least two 20 amp circuits (for Project Monitor);
  - 5. Main circuit breaker; and
  - 6. Components UL listed.
- C. The Decontamination Facility will be furnished with power supply board with one 20-amp circuit for the APM. Additional duplex outlets for the APM will be supplied as requested.
- D. The CONTRACTOR will furnish electrical power for the project.

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**PART 3 - EXECUTION**

**3.01 WORKER PROTECTION**

**A. General:**

1. All asbestos abatement work will be performed in accordance with 29 CFR 1910.1001, 29 CFR 1926.1101 and as specified herein. Personnel will wear and utilize protective clothing and equipment as specified herein. Eating, smoking, or drinking will not be permitted in the asbestos control area. Personnel of other trades not engaged in the abatement of asbestos will not be allowed in the work area unless all the personnel protection provisions of this specification are complied with by the trade personnel.
2. Engineering controls will be used to minimize the airborne fiber concentration within the work area. HEPA filtered exhaust units will be used to maintain a negative pressure within the work area of 0.02 inches of water. A combination of personal protective equipment and work practices will also be used to further reduce employee exposure to asbestos fibers.
3. The CONTRACTOR will provide all authorized visitors with respirators, new filters, protective clothing, headgear, eye protection, footwear, and hard hats as in the procedures described herein and afford them the use of all facilities to hold them free of contamination of asbestos fibers.
4. The CONTRACTOR will provide the decontamination and work procedures to be followed by workers, as well as the results of the personal air monitoring. This information must be posted in the clean room.

**B. Respiratory Protection:**

1. The CONTRACTOR will select and provide at no cost to his/her employees respirators which will provide adequate protection to the employees as specified by Section 1910.1001(g) Table 1 and Section 1926.1101(h) Table 1.
2. Respiratory protection will be worn by all persons potentially exposed to asbestos from the initiation of the asbestos abatement project until all areas have been given clearance. Clearance will be obtained by visual observation and air monitoring conducted by the APM.
3. Personal samples will be collected within the worker's breathing zone. Personal sampling will be the responsibility of the CONTRACTOR. Personal sampling results will be available on site no later than 24 hours after sampling.

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4. The filters provided for both the cartridge respirators and the PAPR's will be NIOSH approved for asbestos fibers.

C. Protective Clothing:

1. The CONTRACTOR will provide to all workers, foreman and superintendents, protective disposable clothing consisting of full body coveralls, head covers, gloves and 18-inch-high boot-type covers and reusable footwear.
2. The CONTRACTOR will provide eye protection and hard hats as required by job conditions and safety regulations.
3. Reusable footwear, hard hats and eye protection devices will be left in the "contaminated equipment room" until the end of the asbestos abatement work.
4. Upon completion of asbestos abatement, the footwear will be disposed of as contaminated waste or cleaned thoroughly inside and out using soap and water before removing it from the work area or from equipment and access area.
5. All disposable protective clothing will be discarded and disposed of as asbestos waste when the wearer exits from the workspace to the outside through the decontamination facilities.
6. The color of the disposable clothing worn outside the work area will be a different color than the disposable clothing worn inside the work area.

D. Decontamination Procedures:

1. Each worker and authorized visitor without exception will, upon entering the decontamination facility: remove street clothes in the clean room, put on an appropriate respirator with new filters, and don clean disposable protective clothing before entering the dirty equipment room or the work area.
2. Each time he/she leaves the work area, each worker and authorized visitor will:
  - a. Vacuum gross contamination from clothing before leaving the work area.
  - b. Proceed to the equipment room and remove all clothing except respirator.
  - c. Still wearing the respirator, proceed to the showers.
  - d. Clean the outside of the respirator with soap and water while showering, taking care to keep respirator filters from getting wet.
  - e. If necessary, remove filters and wet them and dispose of filters in the container provided for the purpose.
  - f. Wash and rinse the inside of the respirator. After showering, dry off with disposable towels.

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3. Following showering and drying off, each worker and authorized visitor will proceed directly to the clean change room and dress in street clothes at the end of the day's work, or before eating, smoking, or drinking. Before re-entering the work area from the clean change room, each worker and authorized visitor will put on a clean respirator with new filters and will dress in clean disposable protective clothing.
4. Contaminated reusable work footwear will be stored in the dirty equipment room when not in use in the work area. Upon completion of asbestos abatement, footwear will be disposed of as contaminated waste or cleaned inside and out using soap and water before removing these items from the work area or from equipment and access areas.
5. Workers removing waste containers from the equipment contamination enclosure will enter the holding area from outside wearing a respirator and will dress in clean disposable coveralls. No worker will use this system as a means to leave or enter the washroom or the work area.

**3.02 DECONTAMINATION FACILITY**

- A. For each abatement area the CONTRACTOR will provide decontamination facilities located in an area agreed upon as part of the approved Asbestos Abatement Plan.
- B. The decontamination enclosure system will consist of three rooms separated by air locks: clean room at entrance followed by an airlock, a shower room followed by an airlock, and a decontamination area/equipment room leading to the work area.
- C. The clean room will have one curtained doorway into the airlock and one entrance (or exit) to non-contaminated areas. The clean room will have sufficient space for storage of the workers' street clothes, towels, and other non-contaminated items. Joint use of this space for other functions such as offices, storage of equipment, materials, or tools is prohibited.
- D. The shower room will have two curtained doorways, one to each airlock. Plastic on shower room and adjoining equipment and clean rooms will be non-transparent (opaque). Showers will be provided and used at all asbestos removal operations. The shower drain will be connected to a force-fed filter system equipped with a 5-micron filter.
- E. The shower room will contain at least one shower, with hot and cold or warm water. A supply of soap and disposable towels should be provided in the shower room.
- F. The CONTRACTOR will provide or construct a waste load-out system consisting of two enclosed chambers separated by an airlock. The chambers will consist of a washroom with a curtained doorway to the airlock leading to the holding area.

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**3.03 MAINTENANCE OF THE WORK AREA**

- A. The CONTRACTOR will install exhaust ventilation for the work area. Negative pressure of 0.02 inches of water will be maintained prior to the commencement of material and equipment decontamination. A HEPA filter is required. If negative air pressure of 0.02 inches of water is lost, work will be halted until negative air pressure is restored. The exhaust ventilation system will operate on a 24-hour basis throughout the abatement process and through the clearance air monitoring. The exhaust ventilation system will be designed in accordance with EPA recommendations included in the "Guidance for Controlling Friable Asbestos-Containing Materials in Buildings." Exhaust ventilation units will be exhausted to the outside of the building. Note: This system is patented and permits must be submitted by the CONTRACTOR to the ENGINEER prior to commencement of the work.
- B. The Contractor will provide an automatic recording instrument to monitor the negative pressure. The permanent record will be turned over to the Engineer to become part of the project documentation records. If negative air pressure of 0.02 inches of water is lost, work will be halted until negative air pressure is restored.
- C. The CONTRACTOR will provide a sufficient number of exhaust ventilation units to create a flow of air from supply air opening toward the exhaust ventilation units to avoid dead air pockets. Make up air intakes may be necessary to ensure adequate airflow in the work area and will be installed by the contractor as required.
- D. The CONTRACTOR will inspect and smoke test the work area to ensure adequate airflow has been established. If dead air spaces exist, the CONTRACTOR will correct the problem using approved engineering controls.

**3.04 ASBESTOS CONTROL AREA CONSTRUCTION**

- A. The CONTRACTOR will construct a polyethylene barrier system if required to enclose the work area which shall include, at a minimum:
  - 1. One layer of 6-mil polyethylene for critical barriers All polyethylene sheeting will be 6-mil fire-retardant.
  - 2. A single layer of polyethylene sheeting will cover critical room openings not being used (i.e., vents, windows, door, etc.)
  - 3. Emergency breakthrough points on the polyethylene will be clearly marked and always accessible. Arrows to emergency exits will be placed 2 feet off the floor.
  - 4. Emergency and fire exits will be maintained from the work area, or alternative



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exits satisfactory to fire officials will be established.

5. Clear acetate windows will be installed at strategic locations in the enclosure system to allow for observation of the abatement process from outside of the work area.

3.05 **ACM ABATEMENT METHODS**

A. ACM Removal:

1. The CONTRACTOR shall pre-clean work area by removing visible gross debris.
2. Install full containment and enclosure systems utilizing two layers of 4 mil poly sheeting for walls and ceilings and two layers of 6 mil poly sheeting for floors unless work practice variance requests have been granted by the MEDEP. As the buildings are to be demolished, Wrap and Cut methods of pipe insulation removal will be permitted. The CONTRACTOR is responsible for obtaining any necessary variances from the MEDEP.
3. Remove all ACM in a wet state (see 40 CFR, Part 61, Subpart M).
  - a. The CONTRACTOR shall adequately wet asbestos-containing material with an amended water solution using equipment capable of providing a fine spray mist in order to reduce airborne fiber and dust concentrations when the material is disturbed. The material shall be saturated to the substrate; however, water will not be allowed to accumulate in the work area. The CONTRACTOR shall maintain removed material adequately wet to reduce fiber release until it can be containerized for disposal. A high humidity shall be maintained in the work area by misting or spraying to assist in fiber/dust settling and to reduce airborne concentrations.
  - b. Saturated ACM shall be removed in manageable sections. Removed material should be containerized before moving on to a new location for continuance of work. surrounding areas shall be periodically sprayed and maintained in a wet condition until visible material and debris is removed.
  - c. ACM roofing lying on the ground shall be removed and properly handled prior to commencing roof asbestos abatement.

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4. Containers (6-mil polyethylene bags or drums) shall be sealed when full. The Contractor shall double bag waste material. Bags shall not be overfilled. Bags shall be individually sealed in a fiber-tight manner by first removing air from the bag, then twirling the open end of the bag sufficiently enough to permit the twirled end to be folded over the wrapped securely with duct tape. Bags shall not be sealed with wire or cord.
5. Large components removed intact may be wrapped in two layers of 6-mil polyethylene sheeting secured with tape for transport to the landfill.
6. Asbestos-containing waste with sharp-edged components which could tear the polyethylene bags or sheeting shall be placed into "burlap" type bags before placing into polyethylene bags or drums for disposal.
7. After completion of the removal work, surfaces from which ACM have been removed shall be wet brushed and sponged or cleaned by some equivalent method to remove visible residue.
8. During this work, the surface being cleaned shall be kept wet.

3.06 **FINAL CLEANUP AND INSPECTION PROCEDURE**

- A. After the removal of asbestos has been completed and before removal of barriers, piping and all other surfaces within the work area will be thoroughly wet cleaned and/or vacuumed. Waste containers (except those containers necessary for waste from final cleanup) will be packed, cleaned, and removed from the work area prior to final cleanup and monitoring.
- B. The APM will evaluate the work area for visible material. The CONTRACTOR will re-clean if necessary and the APM will re-inspect.
- C. After the area passes the evaluation the APM will perform the final aggressive clearance. The samples will be analyzed by the PCM method with clearance criteria of all samples (total fiber count) of less than 0.010 f/cc.

3.07 **DISPOSAL**

- A. All waste material will be promptly wetted and placed in 6-mil polyethylene bags as it is generated. A sufficient number of waste bags will be located in the immediate work area and in the equipment room of the decontamination facility (unused bags in the equipment room must be disposed of as contaminated waste). The CONTRACTOR will count or measure the volume of each filled container leaving the work area and will maintain a written record of such.

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- B. Warning labels, having waterproof print and permanent adhesive, will be affixed to the sides of all waste bags or transfer containers. Warning labels will be conspicuous and legible and will contain the following words in accordance with OSHA 1926.58:

DANGER  
CONTAINS ASBESTOS FIBERS  
AVOID CREATING DUST  
CANCER AND LUNG DISEASE HAZARD  
RQ HAZARDOUS SUBSTANCE  
SOLID N.O.S. (ASBESTOS) NA-9188  
ORM-E

- C. A fine water spray will be used to keep the waste in containers damp at all times. When a waste bag is full, it will be securely sealed with tape.
- D. Once a dumpster of waste containers has accumulated, the CONTRACTOR will arrange for transportation to the landfill, or to a pre-designated and approved off-site temporary location. Waste will not remain on-site longer than 5-days following completion of asbestos abatement activities.
- E. Waste Transportation and Disposal Regulations:
1. It is the responsibility of the CONTRACTOR to determine and ensure compliance with the current waste handling regulations applicable to the work site and the current regulations for waste transportation to and disposal at each ultimate landfill. The CONTRACTOR will comply fully with these regulations and with all U.S. Department of Transportation and EPA requirements.
  2. If required, the CONTRACTOR (or Subcontractor), at no additional cost, will maintain a valid hazardous waste transporter's permit and identification number and will document and fully comply with any hazardous waste manifesting requirements.
  4. The CONTRACTOR will provide legal transportation of this waste to the ultimate disposal landfill and will have the waste hauler and the landfill owner complete all other required manifests, dump slips, or other forms. The completed original of the Waste Shipment Record and copies of the other forms will be sent to the ENGINEER within five calendar days.
  5. Waste may be transported to and temporarily stored at a pre-approved off-site storage area owned by the CONTRACTOR, but it must ultimately be disposed of at the specified landfill before any payments are made.

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- F. Waste Disposal Fees: All CONTRACTOR contaminated waste handling costs, such as waste packaging, on-site/off-site storing/handling, transport/disposal, permitting, record keeping, and non-contaminated waste handling must be included in the CONTRACTOR'S proposal as applicable to removal of asbestos materials and/or performance of the related abatement activities.

3.08 **CERTIFICATION**

Asbestos Abatement Specification 20280- Former American Tissue Mill Demolition, prepared by: Summit Environmental Consultants, Inc.  
Designer: James W. Bouquet, P.E.

Signature:

A handwritten signature in black ink, appearing to read "James W. Bouquet", is written over a horizontal line.

MEDEP: DC-0016  
Expiration Date: December 4, 2008

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**IDENTIFIED ACM TABLES**

**TABLE 1 – A  
ASBESTOS SUMMARY**

**WASTE WATER TREATMENT FACILITY  
AMERICAN TISSUE FACILITY**

<b>LOCATION</b>	<b>ACM TYPE</b>	<b>SAMPLE NUMBER</b>	<b>ESTIMATED QUANTITY</b>
Exterior piping	Black “mastic” coating on small/medium diameter piping	WW-006A	20 Each

Note: Friable material – no change in cost.

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**TABLE 1 – B**  
**ASBESTOS SUMMARY**  
**PAPER MILL BUILDING**  
**AMERICAN TISSUE FACILITY**

LOCATION	ACM TYPE	SAMPLE NUMBER	ESTIMATED QUANTITY
Basement – Under Paper Machine	Thermal system insulation debris and residual on overhead pipe	PM-004A	350 Square Feet (SF)
First Floor in Paper Machine Area – west wall	Plaster soffit material	PM-011A	3,040 SF
First Floor Office Area – north end	Floor tile adhesive associated with 12x12 blue non-ACM floor tile	PM-008A	900 SF
Office under stairs – first floor center	12x12 brown floor tile with associated ACM adhesive	PM-008A/PM-010A	32 SF
Central Office Area – second floor	12x12 tan floor tile with associated ACM adhesive	PM-008A/PM-013A	910 SF
Mezzanine Office – second floor	12x12 tan floor tile with associated ACM adhesive	PM-008A/PM-013A	320 SF
Women's Room – second floor	12x12 tan floor tile with associated ACM adhesive	PM-008A/PM-013A	140 SF
North Office – second floor	12x12 brown floor tile with associated ACM adhesive	PM-008A/PM-010A	160 SF
Second floor – Central Office Area	Tan sheet flooring	PM-015A	100 SF
North and South Loading Docks (2) – west side of the building	Transite wall and ceiling material – interior	Assumed	900 SF
First Floor - center	Transite wall	Assumed	225 SF
Exhaust Duct Room behind Paper Machine	Transite wall and ceiling material – interior	Assumed	4,200 SF
Stairwell to second floor-center	Transite wall	Assumed	150 SF
Building 14A – Exterior siding	Transite wall panels (two layers) – exterior	Assumed	16,100 SF

SECTION 02080  
ASBESTOS ABATEMENT

**TABLE 1 – C**  
**ASBESTOS SUMMARY**

**NORTH GATE GUARD HOUSE**  
**AMERICAN TISSUE FACILITY**

LOCATION	ACM TYPE	SAMPLE NUMBER	ESTIMATED QUANTITY
First Floor Office Area	12x12 brown floor tile with associated ACM adhesive	NG-001A/NG-003A	240 Square Feet (SF)
Exterior	Transite shingle siding	Assumed	2,400 SF

SECTION 02080  
ASBESTOS ABATEMENT

**TABLE 1 – D**  
**ASBESTOS SUMMARY**

**BUILDING #7**  
**AMERICAN TISSUE FACILITY**

LOCATION	ACM TYPE	SAMPLE NUMBER	ESTIMATED QUANTITY
Room Adjacent to Alley	Pipe insulation	Assumed	2 Linear Feet (LF)
Second Floor Office Area – center	12x12 white/green floor tile with associated ACM adhesive	7-002A/7-003A	120 SF
Second Floor	Transite wall and ceiling material – interior	Assumed	32 SF



SECTION 02080  
ASBESTOS ABATEMENT

**TABLE 1 -E**  
**ASBESTOS SUMMARY**

**BUILDING #8**  
**AMERICAN TISSUE FACILITY**

LOCATION	ACM TYPE	SAMPLE NUMBER	ESTIMATED QUANTITY
Basement	Miscellaneous – Bagged asbestos waste	Assumed – In labeled bags	2 Bags

SECTION 02080  
ASBESTOS ABATEMENT

**TABLE 1 – F**  
**ASBESTOS SUMMARY**

**DIGESTER BUILDING**  
**AMERICAN TISSUE FACILITY**

LOCATION	ACM TYPE	SAMPLE NUMBER	ESTIMATED QUANTITY
First Floor Office Area – center	12x12 Brown floor tile with associated ACM adhesive	DIG-001A/DIG-002A	160 Square Feet (SF)

SECTION 02080  
ASBESTOS ABATEMENT

**TABLE 1 – G**  
**ASBESTOS SUMMARY**

**BUILDING #11**  
**AMERICAN TISSUE FACILITY**

LOCATION	ACM TYPE	SAMPLE NUMBER	ESTIMATED QUANTITY
Tool Room - basement	Transite wall and ceiling material – interior	Assumed	375 Square Feet (SF)
Break/Locker Room	Transite wall and ceiling material – interior	Assumed	850 SF
Pump Room –north end	Transite wall and ceiling material – interior	Assumed	1,400 SF

SECTION 02080  
ASBESTOS ABATEMENT

**TABLE 2**

**ASBESTOS SUMMARY**

**ASBESTOS CONTAINING ROOFING MATERIALS  
AMERICAN TISSUE FACILITY**

<b>BUILDING</b>	<b>ESTIMATED QUANTITY</b>
<b>Paper Mill Building</b>	40,000 Square Feet (SF)
<b>Building #6/#7</b>	2,000 SF
<b>Building #11/#11A</b>	6,000 SF
<b>TOTAL</b>	<b>48,000 SF</b>

SECTION 02080  
ASBESTOS ABATEMENT

## BULK SAMPLING DISCLOSURE FORM

Bulk Sampling Disclosure Form

Asbestos is a naturally occurring mineral, very strong and heat resistant and has been used in many products ranging from pipe insulation to cement wallboard. Confirming that a material is an "asbestos-containing material" requires that samples of the material be collected by a Maine-certified Asbestos Inspector; the samples then must be analyzed by a Maine-licensed Asbestos Analytical Laboratory to determine if they are asbestos-containing. Any materials presumed to contain asbestos will be treated by the asbestos abatement contractor as an asbestos-containing material during your building renovation or demolition project. Sampling suspect asbestos materials to determine if they contain asbestos will prevent the unnecessary expense of treating non-asbestos materials as asbestos-containing materials.

In instances where the likelihood is very high that the material in question is asbestos containing, (e.g., original pipe insulation or original insulation on an old boiler in an older building or home), the building owner may choose to presume that the material is asbestos and treat it as such, thereby saving the time and cost associated with sampling the suspect material. Common building materials or building components that may be asbestos-containing include, but are not limited to: pipe insulation, mudded fitting, boiler covering, tank covering, duct covering, breeching covering, surfacing material, floor tiles, cementitious wallboard or siding products.

May it be known that the following material(s) are presumed to be Asbestos Containing Materials and for the purposes of this asbestos abatement project will be treated as such.

Suspect Material Presumed to be Asbestos-Containing	Location(s)	Quantity	Estimated sampling & analytical cost
CEMENT WALLBOARD (TRANSITE)	THROUGHOUT Bldgs	5,000 SF	\$100 <sup>00</sup>
TRANSITE PAPER SIDING	PAPER MILL BUILDING SOUTH END	16,000 SF	\$100 <sup>00</sup>
TRANSITE SHINGLE SIDING	GUARD HOUSE	2,400 SF	\$50 <sup>00</sup>

(Attach additional pages if needed to list all materials presumed to contain asbestos.)


SECTION 02080  
ASBESTOS ABATEMENT

Bulk Sampling Disclosure Form

The total cost of sampling and analyzing these presumed asbestos-containing material(s) is approximately:

\$ 250.00

I understand that if any suspect materials associated with this asbestos abatement activity are presumed to contain asbestos, copies of this disclosure must be presented to the building owner/agent prior to the start of the asbestos abatement activity, and must be part of the permanent record for this project. I also understand that a copy of this completed form must be available upon request at the asbestos project site.

Asbestos Contractor/Design Consultant:	<u>DENNIS B. KINGMAN JR</u>	Project # <u>16556</u>
	(printed name)	
	(signature)	(date)
Building Owner or Agent:		
	(printed name)	
	(signature)	(date)

If you have any questions on asbestos or state and federal regulations on asbestos, please call the Maine Department of Environmental Protection's Asbestos Hazard Prevention Program at (207) 287-2651.

END OF SECTION

FORMER AMERICAN TISSUE MILL DEMOLITION

JANUARY 9, 2009

SECTION 02081  
HAZARDOUS MATERIALS

**PART 1 - GENERAL**

**1.1 SUMMARY**

- A. This Section includes furnishing labor, materials, equipment, supplies, and performing all operations necessary to complete the removal and disposal of hazardous materials, petroleum products, universal wastes, decontamination rinsate and residues, and complying with all applicable federal, state, and local regulations in accordance with these specifications.
- B. Asbestos containing materials are addressed in Section 02080.

**1.2 HAZARDOUS MATERIAL SUMMARY**

- A. Hazardous materials are located throughout the mill complex.

1. Potentially hazardous materials/items were sampled by Summit Environmental Consultants, Inc., on October 16, 2008. Analytical results are included in Appendix A. These materials include, but may not be limited to:
  - a. Building 3
    - Soil within the basement area near the large steel ASTs – approximately 70 cubic yards.
  - b. Building 10
    - Water from within a 12'x12' cistern in the basement – approximately 8,000 gallons.
    - Sludge from within the 12'x12' cistern – approximately 2 cubic yards
  - c. Building 14
    - Sand from within the ten water intake tanks – approximately 250 cubic yards.
  - d. Wastewater Treatment Plant
    - Sludge from within the large holding tank – approximately 3,200 cubic yards.

The CONTRACTOR shall be responsible to confirm all quantities during the bidding process.

3. Petroleum products are present throughout the mill complex. These materials include, but may not be limited to:
  - a. Building 4 (Boiler House)
    - Number 6 oil within piping throughout the building, including to the point where it enters the ground outside of the building.
    - Number 6 oil contamination on the floor and within trenches

SECTION 02081  
HAZARDOUS MATERIALS

throughout the facility.

b. Electrical Transformers

- Transformers containing oil are located throughout the interior and exterior of the facility.
- PCBs are known to have been present within some transformers on the Site. The intent of U.S. Environmental Protection Agency (USEPA) response actions were to remove PCB oil greater than 50 parts per million from all transformers. These transformers were subsequently triple-rinsed. Non-PCB oil within transformers on the mezzanine level of Building 6. These transformers were field analyzed by USEPA on October 15 and 16, 2008.

4. Universal Wastes, as defined by the Universal Waste Rules promulgated by the USEPA, require that if equipment or materials containing Universal Wastes are removed, handling and disposal requirements apply. Universal wastes (intact and broken/damages) are located throughout the facility.
5. The USEPA has performed two removal actions at the facility; however, some materials were not removed due to access issues and/or time constraints. See Appendix B for a memo prepared by Weston on behalf of the EPA regarding the work performed.

- B. The quantities presented above are for informational purposes only. The CONTRACTOR shall determine/verify all quantities of Hazardous Materials and petroleum products within the building prior to submittal of bids.
- C. The CONTRACTOR shall prepare a Site Management Plan addressing the requirements of this Specification. The Site Management Plan will be maintained on-site and made available to the Owner's Representative upon request

1.3 **UNIDENTIFIED HAZARDOUS MATERIALS**

- A. If subsequently identified during the Work, previously unidentified hazardous materials will be removed and disposed on a negotiated lump sum or time and materials basis in accordance with Bid Allocation No. 1.

1.4 **REGULATORY COMPLIANCE AND SAFETY**

- A. The CONTRACTOR shall be responsible for adherence and compliance with all MEDEP, U.S. EPA, OSHA and DOT regulations regarding removal, transport and disposal of materials/items identified in this Section or identified during building demolition.



SECTION 02081  
HAZARDOUS MATERIALS

- B. Workers within an established exclusion zone shall have 40 hour OSHA 1910.10 training, 3 days of supervised field experience and a current 8-hour refresher. Medical surveillance documentation and fit testing for respirators is also required.
- C. The CONTRACTOR shall prepare and implement a site specific Health and Safety Plan (CHASP) in accordance with OSHA 1910.120.
- D. Determination and implementation of PPE is the responsibility of the CONTRACTOR. PPE requirements shall be established in the CHASP.
- E. The CONTRACTOR shall furnish and maintain a Spill Response Kit on Site at all times. Spill kit contents will be subject to approval by the ENGINEER. the CONTRACTOR shall maintain a stockpile of clay or absorbent booms to use in constructing dikes as necessary.

**1.5 SUBMITTALS**

- A. The CONTRACTOR shall furnish the ENGINEER with the name and supporting documentation as requested for the transport subCONTRACTOR(s) and waste disposal site(s).
- B. Appropriate copies of all hazardous waste manifests indicating proper disposal of all waste material shall be provided to the Owner prior to final payment.

**PART 2 - PRODUCTS**

NOT USED

**PART 3 - EXECUTION**

**3.1 TYPICAL SEQUENCE OF WORK**

The CONTRACTOR will determine the sequence of work in accordance a Site Management Plan prepared by the CONTRACTOR. Sequence of work will include, but may not be limited to, the following steps:

- A. Prepare the site for remediation by establishing work area barriers, an emergency decontamination station, exclusion zones and monitoring procedures as necessary.
- B. Install snow fencing around transformers known to have contained PCBs to prevent migration of potentially impacted soils. Transformer locations are shown on the Drawings.
- C. Establish disposal container staging area. The area will be secure from intrusion by non-authorized personnel. Containers shall be covered and secure at all times.

SECTION 02081  
HAZARDOUS MATERIALS

- D. Perform hazardous waste remediation/cleanup in accordance with the scope of work in this Specification and the CONTRACTOR'S Site Management Plan.
- E. Transport and properly dispose/recycle removed materials and equipment.
- F. Demobilize from the site including removal of barriers, disposable items and equipment. Snow fencing around former transformer locations shall remain.

**3.2 UNIVERSAL WASTES**

- A. The CONTRACTOR shall inspect all fixture ballasts prior to disposal. Those with "no PCB" labels can be disposed as solid waste. In addition, fixtures with date codes indicating manufacture later than 1979 are assumed not to contain PCBs. PCB containing ballasts will be placed in appropriate containers (e.g. drums) and disposed as a Universal Waste.
- B. Thermostats containing mercury and the mercury gauge shall be placed in appropriate containers and disposed of as Universal Waste.
- C. All fluorescent light bulbs, sodium vapor lamps, CRTs, emergency light batteries, etc. shall be removed and packaged for handling and proper disposal by the CONTRACTOR.
- D. Pieces of broken fluorescent light bulbs and CRTs shall be removed from floors and the area properly cleaned prior to demolition.

**3.3 LIQUIDS AND RESIDUES**

- A. Liquids removed from tanks, containers, piping and equipment will be segregated by source and containerized for disposal characterization purposes.
- B. Rinsate and residues from scrapping, cleaning and decontamination activities will be segregated by source and containerized for disposal characterization purposes.
- C. Equipment oils shall be analyzed for PCBs by the CONTRACTOR and disposed of accordingly.
- D. Petroleum products will be recycled as appropriate.
- E. Residual No. 6 Oil shall be drained from the buried pipe extending from the Boiler House to the 50,000 gallon UST. The pipe will be cut at the railroad track embankment and capped. The UST will be removed by others.

SECTION 02081  
HAZARDOUS MATERIALS

3.4 **CLEANING AND DECONTAMINATION**

- A. The surfaces of tanks, pits, walls, clarifiers, trenches, floors, etc. shall be cleaned to the satisfaction of the ENGINEER such that no visible residue or liquid, with the potential to be a regulated waste, is remaining.

3.5 **STOCKPILE/TEMPORARY STORAGE AREA CONTROL**

- A. The CONTRACTOR shall prevent removed hazardous materials (or potentially hazardous materials) and special wastes from coming into contact with stormwater and the resulting runoff.
- B. Observed runoff coming in contact with these materials shall be immediately contained (absorbent booms, soil dikes, etc.). Contaminated runoff must be prevented from reaching the river or other off-site drainways. The CONTRACTOR shall be responsible for all costs associated with controlling and, if necessary, clean-up/remediation resulting from stockpile/storage area runoff.
- C. Stockpiles/Storage area location will be subject to the ENGINEER's approval.

3.6 **WASTE DISPOSAL**

- A. The CONTRACTOR shall perform all waste disposal characterization as necessary for the proper disposal of waste materials.
- B. The CONTRACTOR shall perform necessary containerization/packaging, on-site/off-site storing/handling, transport, disposal, permitting and record keeping associated with all waste disposal from the Site.
- C. Waste handling costs are the responsibility of the CONTRACTOR as applicable to the removal and disposal of materials identified in this Specification and /or performance of the related remediation activities.
- D. The CONTRACTOR is responsible for preparing, maintaining and providing to the OWNER appropriate copies of all waste manifests resulting from the project.

**END OF SECTION**

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GRANULAR MATERIALS

**PART 1 - GENERAL**

**1.01 DESCRIPTION**

- A. The Work covered by this Section consists of furnishing all labor, materials, tools, equipment and incidentals necessary for obtaining and placing the granular material as indicated on the Drawing and specified herein.

**1.02 DEFINITIONS**

- A. Granular Fill includes all material used as backfill for pits, clarifiers, trenches, former basements and crawl spaces and other areas as directed by the Engineer.

**1.03 RELATED WORK**

- A. Section 01150 MEASUREMENT AND PAYMENT
- B. Section 02060 BUILDING DEMOLITION
- C. Section 02290 EROSION AND SEDIMENT CONTROL

**1.04 REFERENCES**

- A. ASTM C-136 Particle-Size Analysis of Aggregates
- B. ASTM D-1556 Modified Proctor Density Testing

**1.05 QUALITY ASSURANCE**

- A. All materials, procedures, operations, and methods shall be in strict conformance with the Drawings and these Specifications, and shall be subjected to strict quality control monitoring as detailed herein, and in the Construction Quality Assurance (CQA/QC) Plan prepared for this project. The placed granular materials shall conform to the Drawings and these Specifications, except as otherwise authorized in writing by the ENGINEER.

**1.06 SUBMITTALS**

- A. The CONTRACTOR shall submit the location of all borrow pits to the ENGINEER no less than two weeks prior to the anticipated placement of any granular materials.
- B. The CONTRACTOR shall submit a 50-pound sample from each of the borrow pits proposed to furnish the required quantity of granular materials. The samples shall be submitted to the ENGINEER no less than two weeks prior to the anticipated placement of any granular materials.

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## GRANULAR MATERIALS

## C. Backfill

1. The CONTRACTOR shall submit the results of the particle-size analysis for backfill materials conducted in accordance with ASTM C-136 for every 1,000 cubic yards of materials imported to the site.
2. The test results shall verify that the material meets the technical requirements of these Specifications. The test results shall be submitted to the ENGINEER no less than one week prior to the anticipated placement of granular materials.

**PART 2 - MATERIALS**

## 2.01 GRANULAR MATERIALS

## A. Gravel

1. Gravel shall consist of hard, strong, durable, angular particles that are free of any materials, roots, trees, stumps, concrete, construction debris, other organic matter, and deleterious materials.
2. The gravel shall meet the gradation requirements set forth by the Maine Department of Transportation, Standard Specifications; Highways and Bridges, for Underdrain Type C aggregate as given below and as determined by ASTM C-136.

<b>Sieve Size</b>	<b>Percent Passing</b>
1-inch	100
3/4-inch	90-100
1/2-inch	25-60
3/8-inch	0-75
No. 4	0-25
No. 10	0-5

## B. Processed Demolition Materials

1. Processed (crushed) demolition materials (inert fill including concrete, brick and masonry block) may be used as granular fill. Crushing will be permitted on site with proper consideration to dust, noise and sediment controls.
2. Processed demolition debris may be used to backfill excavation(s) remaining following building, foundation and pavement demolition. Processed demolition debris shall meet the following gradation requirements:

02232  
GRANULAR MATERIALS

<b>PROCESSED DEMOLITION DEBRIS</b>	
<b>Sieve Size</b>	<b>Percent finer</b>
6"	100
3"	60 to 80
¼"	20 to 70
No. 40	0 to 30
No. 200	0 to 10

The maximum particle size shall be limited to 6 inches.

**PART 3 - EXECUTION****3.01 INSPECTION**

- A. Before applying granular materials, the CONTRACTOR shall verify that underlying surface are free of residual waste materials and foreign objects.
- B. The CONTRACTOR shall verify that finished grades, slopes and elevations conform to the specified requirements. Misgraded Work shall be corrected at no additional cost to the OWNER.
- C. At the beginning of each day's Work, the ENGINEER will inspect the previously-placed granular materials and institute whatever corrective action, if any, that the ENGINEER deems appropriate, at no extra cost to the OWNER, unless the action requested is clearly beyond the scope of this Contract. This may include, but is not limited to the removal of unsuitable granular materials.

**3.02 PLACEMENT OF GRANULAR MATERIALS**

- A. Granular materials shall be placed, not dumped, to the limits and grades shown on the Drawings.
- B. Material shall be spread and graded in lifts no greater than 24 inches to the thickness necessary to fill to finish grade (typically existing ground level).
- C. Granular materials shall be compacted to 90% of maximum density (Modified Proctor). The CONTRACTOR is responsible for Proctor testing of backfill materials.

**3.03 CRITERIA AND TOLERANCES**

- A. Final grades shall be within two tenths of one (0.2) foot below to five tenths of one (0.5) foot above (-0.2 to +0.5) the grades as dictated by field conditions, and approval by the ENGINEER.
- B. No additional payment will be made for quantities of soils placed in excess of that amount required to achieve the minimum fill elevation.

02232  
GRANULAR MATERIALS

3.04 **FIELD QUALITY CONTROL**

- A. Grain size conformance testing will be conducted on the actual material being excavated at the borrow pit and transported to the job site. One test per 1,000 cy of material transported will be performed in accordance with ASTM D-422 (sand) or C-136 (gravel).

**END OF SECTION**

02290

EROSION AND SEDIMENT CONTROL

**PART 1 - GENERAL**

**1.01 DESCRIPTION**

- A. The Work covered by this Section consists of furnishing all materials, equipment, tools and labor to construct and maintain erosion and sediment control systems.
- B. The Work to be performed includes, but is not limited to the installation or construction of check dams, silt fences, straw bales, diversion ditches, temporary seeding, and site surface drainage (including snow pile runoff management) as specified herein and as shown on the Drawings.
- C. Prior to commencing site work, the Contractor shall verify that a Notice of Intent (NOI) to Comply with Maine Construction General Permit has been filed with the MEDEP. The Contractor shall comply with requirements of this permit.

**1.02 REFERENCES**

- A. BEST MANAGEMENT PRACTICES : MEDEP's *Maine Erosion and Sediment Control BMPs* dated March 2003.

**1.03 QUALITY ASSURANCE**

- A. All materials, procedures, operations, and methods shall be in strict conformance with the Drawings and these Specifications, and shall be subjected to strict quality control monitoring as detailed herein, and in the Erosion and Sediment Control Plan prepared for the NOI. The installed erosion and sediment controls shall conform to the Drawings and these specifications, except as otherwise authorized in writing by the ENGINEER.
- B. The CONTRACTOR shall periodically inspect and maintain proper erosion and sediment control measures throughout the duration of the project including weekends and holidays. All erosion and sediment controls shall be maintained as necessary.

**1.04 SUBMITTALS**

- A. Product data shall be submitted as indicated in Section 01300 - SUBMITTALS.

**PART 2 - PRODUCTS**

**2.01 EROSION AND SEDIMENT CONTROL MATERIALS**

- A. Silt Fence: the CONTRACTOR shall supply silt fence and hay bales to control surface-water runoff and sediment. Acceptable silt fence material shall meet or exceed the criteria provided in Table 02290-1. The CONTRACTOR shall submit the manufacturer's product data to the ENGINEER for approval.



02290

## EROSION AND SEDIMENT CONTROL

**PART 3 - EXECUTION****3.01 TRANSPORTATION, HANDLING AND STORAGE**

- A. Materials shall be handled in such a manner as to prevent damage to the material. Materials shall not be dropped or dragged over the ground. Any materials damaged shall be replaced at no expense to the OWNER.

**3.02 EROSION AND SEDIMENT CONTROL STRUCTURES**

- A. Silt Fence: The CONTRACTOR shall install silt fence in accordance with the Specifications and installation instructions provided by the manufacturer or as shown on the Drawings, or as directed by the ENGINEER. Presiding authority shall be as follows, in descending order: ENGINEER's direction, Drawings, Specifications, manufacturer's installation instructions. The CONTRACTOR shall maintain the silt fence until demobilization.
- B. Diversion ditches and Check Dams: If necessary to control stormwater runoff, the CONTRACTOR shall construct ditches subject to approval for the ENGINEER. The CONTRACTOR shall construct and maintain check dams as necessary to control runoff.
- C. Hay bales shall be furnished and placed as necessary to control sediment from stockpiles placed on pavement areas.

**Table 02290-1**

<b>SILT FENCE PROPERTIES<sup>1</sup></b>			
<b>PROPERTIES</b>	<b>QUALIFIER</b>	<b>SPECIFIED VALUE</b>	<b>TEST METHOD</b>
Grab Tensile Strength	Minimum	90 lb.	ASTM D-1682
Mullen Burst Strength	Minimum	190 psi	ASTM D-3786
Slurry Flow Rate	Maximum	0.3 gal/min/f <sup>2</sup>	
Equivalent Opening Size		40-80	US Std - Sieve CW-02215
Ultraviolet Radiation Stability	Minimum	90%	ASTM G-26

1. Source: BEST MANAGEMENT PRACTICES  
Maine DEP's Stormwater Management for Maine: Best Management Practices (1995)  
Cumberland County SWCD Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices (1991).

**3.03 EXISTING CATCH BASINS**

- A. The CONTRACTOR shall employ measures necessary to prevent sediment, demolition debris and hazardous materials from entering existing catch basins.

02290

EROSION AND SEDIMENT CONTROL

- B. Measures may include, but are not limited to, temporary sealing of catch basin covers, diversion dams, absorbent pads/booms, etc. Measures will be subject to the ENGINEER'S acceptance.
- C. CONTRACTOR shall be aware that during periods of river flooding, water may back up through outfall pipes and discharge from existing catch basins. Efforts and costs associated with flood water management shall be performed by the CONTRACTOR at no additional cost to the OWNER.

**3.04 FLOOD WATER MANAGEMENT**

- A. The CONTRACTOR shall be aware that the project is sited within an area susceptible to flooding from the adjacent Kennebec River.
- B. CONTRACTOR shall be responsible for site management including control/security/safety of personnel, equipment, demolition debris, soil materials, hazardous materials, etc. during periods of river floodings. Efforts and costs associated with flood water management shall be performed by the CONTRACTOR at no additional cost to the OWNER.

**END OF SECTION**

02831  
FENCE

**PART 1 - GENERAL**

**1.01 DESCRIPTION**

- A. The Work covered by this Section consists of furnishing all materials, equipment, tools and labor to construct and maintain fencing in locations shown on the drawings.

**1.03 QUALITY ASSURANCE**

- A. The CONTRACTOR shall periodically inspect and maintain fencing throughout the duration of the project.

**1.04 SUBMITTALS**

- A. Product and installation specifications shall be submitted as indicated in Section 01300 - SUBMITTALS.

**PART 2 - PRODUCTS**

**2.01 CHAIN LINK FENCE MATERIALS**

- A. Six-foot high, zinc coated galvanized steel chain link fence (with top rail, no barbed wire).
- B. Master-Halco or equal
- C. Post Embedment: Posts driven a minimum 3 feet; concrete embedment not required.
- D. Gates: Two 10-foot (minimum width) chain link fence gates consistent with specified fence materials and construction.

**2.02 SNOW FENCE MATERIALS**

- A. 3-foot high (minimum) wooden snow fence or plastic tree protection fence.
- B. Steel posts (5-foot length, minimum).
- C. Wire or plastic ties.

**PART 3 - EXECUTION**

**3.01 TRANSPORTATION, HANDLING AND STORAGE**

- A. Materials shall be handled in such a manner as to prevent damage to the material. Materials shall not be dropped or dragged over the ground. Any materials damaged shall be replaced at no expense to the OWNER.

02831  
FENCE

**3.02 FENCE INSTALLATION**

- A. Chain-link fence to be installed in accordance with manufactures recommended procedures.
- B. Chain-link fence to be installed in location shown on the Drawings.
- C. Gates are to be located at the paved entrance off of Bangor Street below the railroad crossing and at the southern entrance to the site (refer to Drawings) . Gates shall have a provision for locking when the site is not occupied.
- D. Snow fencing shall be installed around former PCB containing transformer locations as shown on the Drawings. Fencing shall be secured to posts at each of the four corners using wire or plastic zip ties. Fencing shall extend a minimum of 3 feet beyond the edge of the location of the former transformer pad.
- E. Fencing and gates to remain in place and the property of the Owner following completion of the project.

**END OF SECTION**

02901  
SITE RESTORATION CLEANUP

**PART 1 - GENERAL**

**1.01 SCOPE OF WORK**

- A. CONTRACTOR shall furnish all labor, materials, equipment, and incidentals required to perform miscellaneous Work not specified in other Sections, but necessary for the proper completion of the Work as shown on the Drawings.
- B. When applicable, the CONTRACTOR shall perform the Work in accordance with other Sections of these Specifications. When no applicable specification exists, the CONTRACTOR shall perform the Work in accordance with established industry practice and/or as directed by the ENGINEER.
- C. The Work of this Section includes, but is not limited to, the following:
  - 1. Clean up.
  - 2. Incidental work.
  - 3. Restoration of disturbed areas including placement of loam, seed and mulch.
  - 4. Removal of temporary facilities, containers and stockpiles.

**PART 2 - PRODUCTS**

**2.01 MATERIALS**

- A. Materials required for this section shall be the same quality of materials that are to be restored. Where possible, the CONTRACTOR may re-use existing materials that are removed subject to the approval of the ENGINEER.
- B. Loam (vegetative cover layer) shall consist of loose, friable, and loamy soil material (loam, sandy loam, silty loam, sandy clay loam, clay loam) and shall be free of debris, trash, stumps, rocks, roots, and weeds. Vegetative soil shall be able to support healthy vegetation and shall not contain substances, which may be toxic to humans or plants. The fraction of particles passing through the 10-mesh sieve shall not contain more than 40 percent clay. Organic matter content shall be greater than 3 percent but less than 20 percent by weight, and pH shall be within the range 6.0 and 7.5. Lime shall be added appropriately if the pH is less than 6.0. Soluble salts shall not exceed 500 parts per million (ppm).
- C. Mulch shall be machine applied wood fiber cellulose.
- D. Grass seed specifications are provided in the Sediment and Erosion Control Notes on Figure 1.

02901  
SITE RESTORATION CLEANUP

**PART 3 - EXECUTION**

**3.01 CLEAN UP**

- A. The CONTRACTOR shall remove all construction material, excess excavation, temporary buildings, equipment, containers and other debris remaining on the project except as otherwise specified, as a result of construction operations and shall restore the site of the work to a neat and orderly condition.
- B. During the course of the work, the CONTRACTOR shall keep the site of operations in as clean and neat a condition as is possible. CONTRACTOR shall dispose of all residue resulting from the construction work.
- C. At the completion of the work, the CONTRACTOR shall:
  - 1. Remove waste materials, rubbish, tools, equipment, machinery, and surplus materials.
  - 2. Remove grease, dust, dirt, stains, labels, and other deleterious or foreign materials from project area.
  - 3. Repair, patch, and touch up marred or otherwise damaged surfaces.
  - 4. Prior to handing over the completed project, conduct an inspection of surfaces, and all work areas, to verify that the entire site is in an orderly condition.
  - 5. Cleanout and re-secure silt fencing. Silt fencing to remain until vegetation is established and subsequent removal by the Owner.
- D. In order to prevent environmental pollution arising from the construction activities related to the performance of this project, the CONTRACTOR and Subcontractors shall comply with all applicable federal, state and local laws and regulations concerning waste material disposal, as well as the specific requirements stated in this section and elsewhere in these Specifications.
- E. The CONTRACTOR is advised that the disposal of excess excavated material in wetlands, stream corridors, and plains is strictly prohibited. Any violation of this restriction by the CONTRACTOR or any employee, will be brought to the immediate attention of the responsible regulatory agencies, with a request that appropriate action be taken against the offending parties. Therefore, the CONTRACTOR will be required to remove the fill and restore the area impacted without additional cost to the OWNER.

02901  
SITE RESTORATION CLEANUP

**3.02 INCIDENTAL WORK**

- A. CONTRACTOR shall perform all incidental work not otherwise specified, but necessary to the proper completion of the Work as specified and as shown on the Drawings.

**3.03 RESTORING EASEMENTS AND RIGHT-OF-WAYS**

- A. Existing vegetated surfaces damaged by construction shall be replaced. The CONTRACTOR shall restore the areas with an equivalent depth and quality of loam, seed and fertilizer as necessary to produce a stand of grass at least equal to that existing prior to construction. These areas shall be maintained and re-seeded, if necessary, until the Work has been completed and accepted. Any additional Work required to restore property to the original condition shall be performed by the CONTRACTOR.

**3.04 PROTECTION OF EXISTING UNDERGROUND UTILITIES**

- A. Underground utilities (telephone, sewer, culverts, etc.) may exist within the project area. Locations of these utilities may or may not be shown on the Drawings. Prior to starting work the CONTRACTOR shall be responsible for determining utility locations by contacting the utility owners and/or digging test pit excavations as directed by the ENGINEER.
- B. The CONTRACTOR shall cooperate with the OWNER, and other utility companies, and shall not allow utility service to be disrupted or relocated without the permission of the ENGINEER and the written permission of the utility owner.
- C. In the event that an existing utility must be relocated in order to avoid a conflict with the Work, the CONTRACTOR shall notify the ENGINEER and the OWNER promptly.

**3.05 LOAM, SEED AND MULCH**

- A. All ground areas disturbed by or exposed during construction shall be covered with vegetative soil.
- B. Previously constructed grades shall be repaired, if necessary, so that the areas to be covered with vegetative soil shall conform to the section indicated on the Drawings upon completion of vegetative soil placement.
- C. Areas to be covered with topsoil (loam) shall be thoroughly scarified by approved means to a depth of at least 3 inches for bonding of vegetative soil with the subsoil. The Work shall be performed only during periods when beneficial results are likely to be obtained; i.e. when conditions are such, by reason of drought, excessive moisture, or other factors, that satisfactory results are not likely to be obtained, the Work will be stopped by the ENGINEER and shall be resumed only when directed. Undulations or irregularities in the surface that would interfere with further construction operations or maintenance shall be leveled before the next specified operation.

02901  
SITE RESTORATION CLEANUP

Vegetative soil layer shall be uniformly distributed on the designated areas and evenly spread to a minimum loose thickness of 4 inches. The spreading shall be performed in such manner that planting can proceed with little additional soil preparation or tillage. The surface resulting from placing topsoil shall meet the final grades as indicated on the Drawings. Vegetative cover shall not be placed when the subgrade is frozen, excessively wet, extremely dry, or in a condition otherwise detrimental to proper grading or the proposed planting.

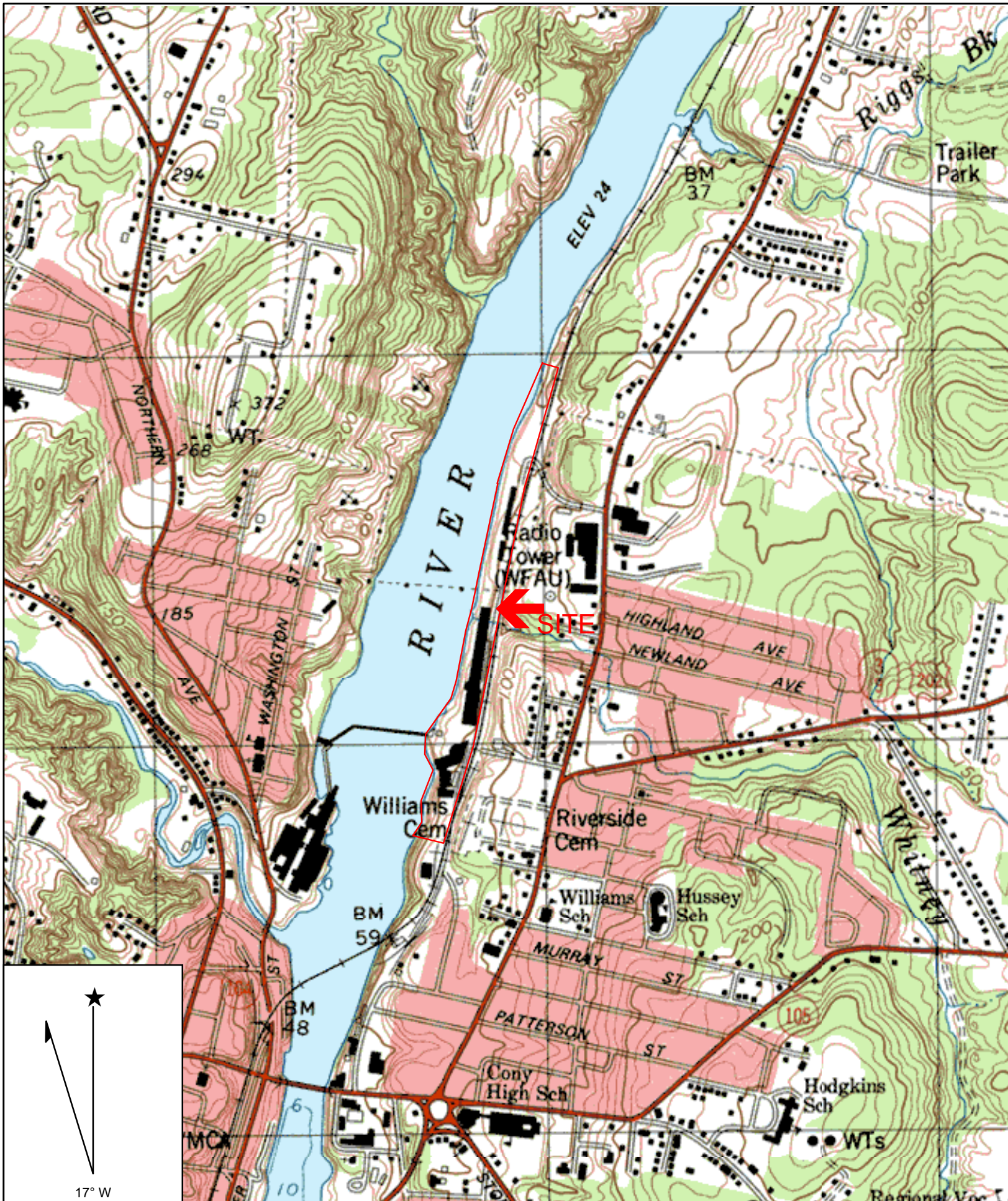
The CONTRACTOR shall furnish all equipment, tools, materials, and labor necessary for establishing temporary and permanent vegetative cover; e.g., seeding, fertilizing, and mulching, on all areas disturbed at the site by performance of the Work.

- E. Seed shall be applied using hydroseeder. Mulch shall be machine applied. Preparation and application of seed and mulch shall be in accordance applicable sections of the *Maine Erosion and Sediment Control BMPs*.
- F. Preparation and application of seed and mulch shall be in accordance with the Sediment and Erosion Control Notes.
- G. Basements and foundations backfilled with granular material will not require loam and seeding.

**END OF SECTION**



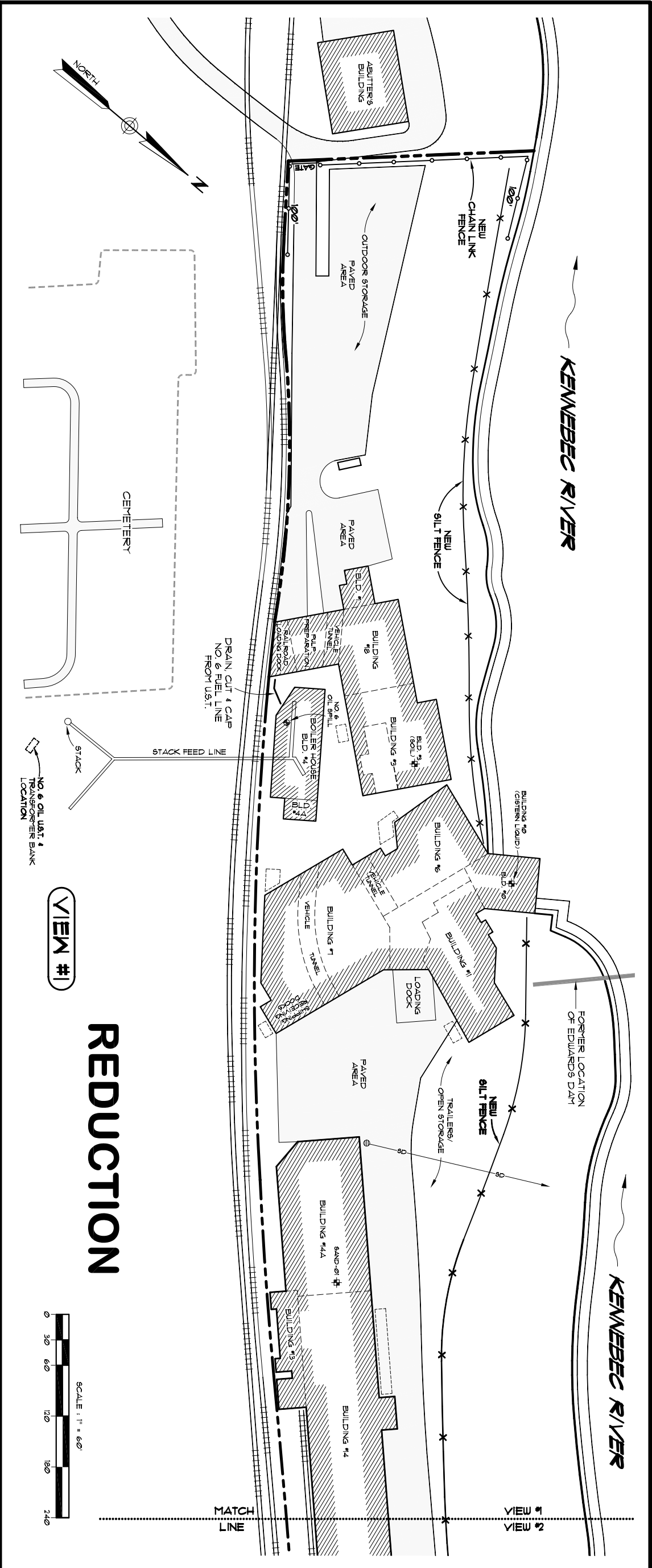
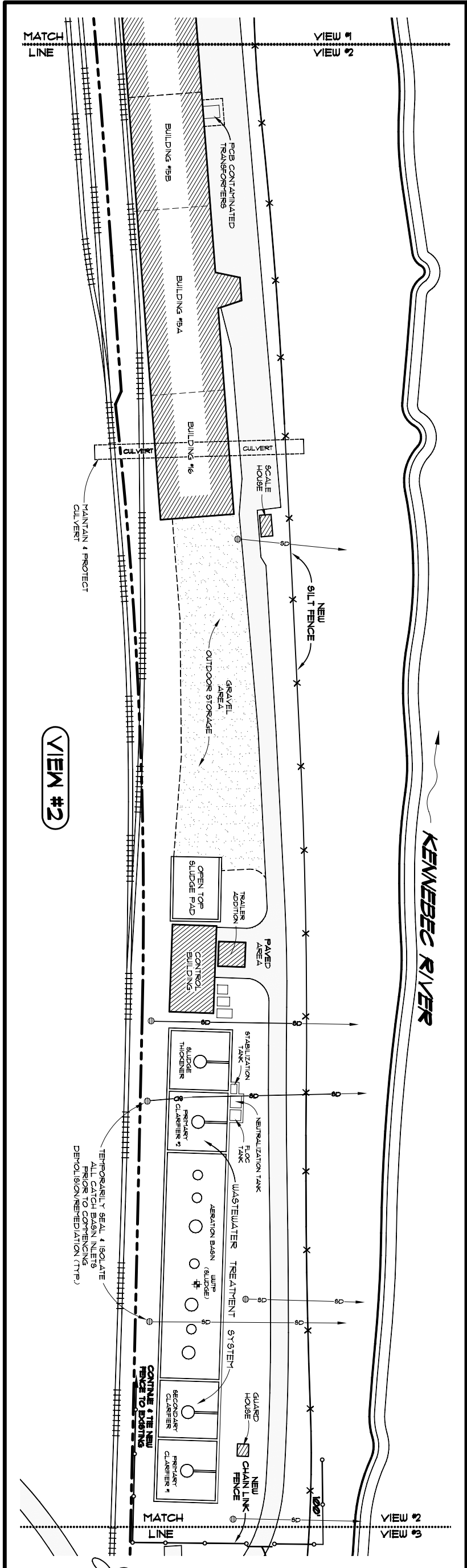
## **FIGURES**





Name: AUGUSTA  
 Date: 10/22/2008  
 Scale: 1 inch equals 1000 feet

Location: 044° 19' 40.3" N 069° 45' 58.5" W  
 Caption: Figure 1: Site Location  
 Former American Tissue Mill  
 Augusta, Maine





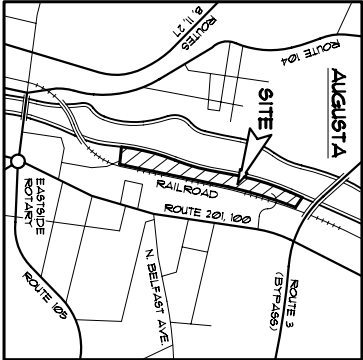
SHEET NUMBER  —	PROJ. #6641		640 MAIN ST. LEWISTON, MAINE 04240  	Tel.: (207) 795-6009 Fax: (207) 795-6128	PROJECT:  <b>AMERICAN TISSUE FACILITY DEMOLITION</b>	SHEET TITLE:  <b>SITE SCHEMATIC</b>				
				ADDRESS: AUGUSTA, MAINE	SCALE: 1" = 60'	DRAWN BY: PLAN-IT				
				CLIENT: CITY OF AUGUSTA	DATE: OCT. 2008	APPR BY: JWB	NO.	REVISION	DATE	

PLAN NOTE

EXISTING CONDITIONS IS BASED UPON AN AERIAL PHOTOGRAPH OBTAINED FROM THE STATE OF MAINE OFFICE OF GIS. WEBSITE AND A PLAN OF THE SITE PREPARED BY SEBAGO TECHNICS, INC. IN 1993.

LEGEND

- BOUNDARY LINE OF SUBJECT PARCEL. (SEE PLAN NOTE)
- RAILROAD TRACKS
- NEW SILT FENCE
- NEW CHAIN LINK FENCE
- CATCH BASIN
- STORM DRAIN LINE
- SAMPLE LOCATION TYPE & NUMBER
- SAND-61 #
- BUILDING
- PAVEMENT
- NEW SNOW FENCE



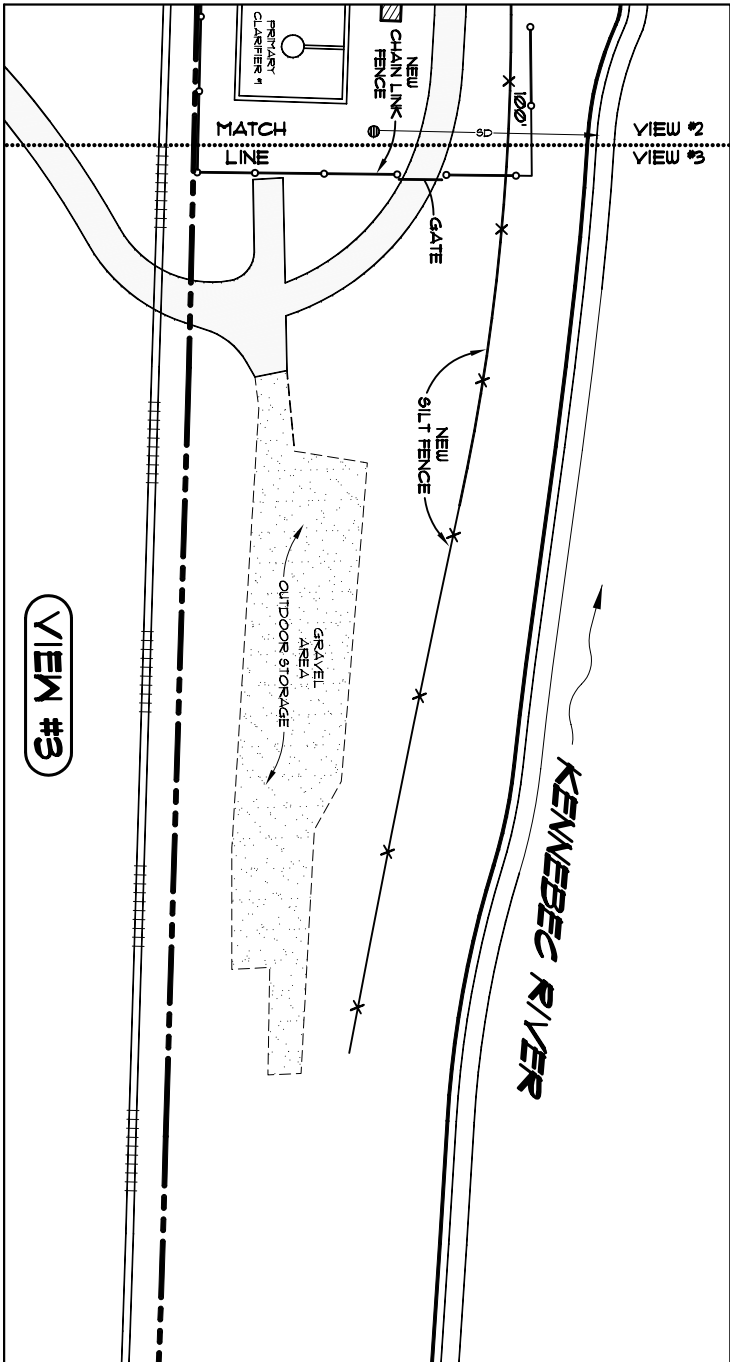
LOCATION MAP

SOIL EROSION AND SEDIMENT CONTROL NOTES

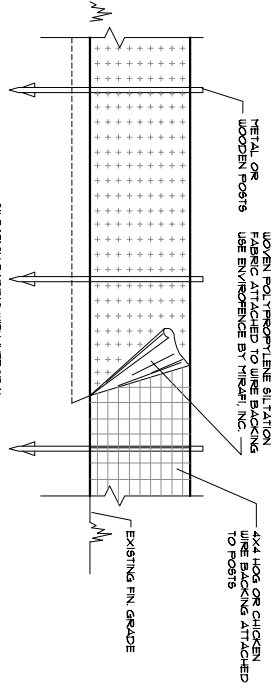
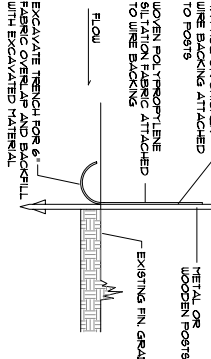
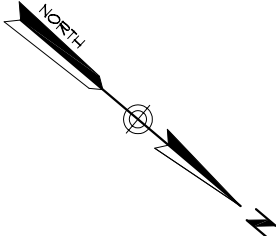
- 1) ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE OR MATERIAL REMOVAL OR BUILDING DEMOLITION ON THE SITE AND MAINTAINED THROUGH PROJECT COMPLETION. ALL EROSION AND SEDIMENT CONTROL'S SHALL BE INSTITUTED IN ACCORDANCE WITH MAINE EROSION AND SEDIMENT CONTROL BMP's, DATED MARCH 2003.
- 2) THE LOCATION OF SOME EROSION CONTROL DEVICES MAY BE ALTERED FROM THAT SHOWN ON THE DRAWINGS IF DRAINAGE PATTERNS DURING THE PROJECT ARE DIFFERENT FROM ANTICIPATED. THE CONTRACTORS RESPONSIBILITY TO ESTABLISH EROSION CONTROL PRACTICES SHALL BE MAINTAINED THROUGHOUT THE PROJECT. ANY EROSION CONTROL MEASURES SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
- 3) EROSION CONTROL MEASURES SHALL BE MAINTAINED AT ALL TIMES. ADJUSTMENTS SHALL BE MADE AS WORK PROGRESSES TO MAINTAIN A FUNCTIONAL EROSION CONTROL SYSTEM. ADDITIONAL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED / INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTION.
- 4) EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTITUTED FOR BORROW OR STOCKPILE AREAS (SOIL AND DEMOLITION MATERIALS/DEBRIS).
- 5) SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSPECTED AFTER EACH RAINFALL AND ONCE (MINIMUM) DAILY.
- 6) EROSION CONTROL DEVICES SHALL BE CLEANED WHEN THEY BECOME HALF FILLED WITH SEDIMENT.
- 7) EROSION CONTROL'S SHALL NOT BE REMOVED UPON COMPLETION OF WORK. HOWEVER, PRIOR TO DEMOLITION, THE CONTRACTOR SHALL CLEAN AND REESTABLISH EROSION CONTROL'S TO THE SATISFACTION OF THE ENGINEER.
- 8) DISTURBED AREAS LEFT EXPOSED FOR MORE THAN 30 DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC WILL IMMEDIATELY RECEIVE STRAW MULCH. MULCH WILL BE APPLIED AT A RATE OF 15 TO 2 TONS PER ACRE.
- 9) PERMANENT SEEDING SHALL BE PERFORMED ON ALL DISTURBED EXPOSED AREAS WITHIN 7 DAYS FOLLOWING CEASE OF WORK IN A DRAINABLE AREA OF THE SITE. MULCH SHALL BE USED AS NECESSARY FOR PROTECTION UNTIL FINAL SEEDING IS ESTABLISHED.

GENERAL NOTES

- 1) THE WORK COVERED UNDER THIS CONTRACT SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING ITEMS:
- 2) MOBILIZATION/DEMOLITION.
- 3) FINISHING A TEMPORARY FIELD OFFICE, ALONG WITH TEMPORARY ELECTRICAL, POWER, TELEPHONE COMMUNICATIONS, SEPARATE MEN AND WOMEN SANITARY FACILITIES AND POTENTIAL POTABLE WATER.
- 4) INSTALLATION OF A PERIMETER STEEL CHAIN LINK FENCE IN LOCATIONS SHOWN ON THE DRAWINGS. PROVIDE SITE SECURITY (BARRIERS, GUARDS, FLAGMAN) AS NECESSARY.
- 5) INSTALLATION OF SNOW FENCE IN LOCATIONS SHOWN ON THE DRAWING TO PREVENT TRACKING OF POTENTIALLY POLYCHLORINATED BI-PHENYL (PCB) IMPACTED SOILS.
- 6) SNOW REMOVAL AND STOCKPILING. IN THE EVENT THAT SNOW ACCUMULATES IN QUANTITIES MORE THAN THE SITE CAN HANDLE, THE CITY WILL PROVIDE AN ALTERNATIVE LOCATION FOR SNOW STOCKPILING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY OFF-SITE TRANSPORTATION.
- 7) ESTABLISHMENT AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL'S AND STORMWATER MANAGEMENT SILT FENCE, CHECK DAMS, FLOOD WATER MANAGEMENT ISOLATION OF CATCH BASINS, AND ANY OTHER NECESSARY CONTROL'S REQUIRED IN THESE SPECIFICATIONS AND DRAWINGS TO PERFORM THE WORK.
- 8) REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIALS (ACM), WORK INCLUDES REGULATORY AGENCY NOTIFICATION, ABATEMENT DESIGN, REMOVAL, CLEARANCE INSPECTION AND AIR SAMPLING AND DISPOSAL.
- 9) REMOVAL AND DISPOSAL OF HAZARDOUS WASTE, RESIDUALS AND UNIVERSAL WASTE.
- 10) DECONTAMINATION/CLEANING OF TANKS, PITS AND BUILDING FLOORS INCLUDING DISPOSAL/HANDLING OF WASTEWATER AND RESIDUALS. WORK INCLUDES REMOVAL OF CONTENTS OF CISTERNS IN BASEMENTS, WATER AND SLUDGE FROM THE FORMER WASTEWATER TREATMENT PLANT AND OIL STAINING WITHIN THE BOILER PLANT.
- 11) REMOVE BIOHAZARD (i.e. PIGEON GUANO).
- 12) REMOVE RESIDUAL FUEL OIL AND NON-REGULATED MATERIALS CONTAINED WITHIN PIPING. PIPING TO BE REMOVED AND PROPERLY DISPOSED ONCE DRAINED.
- 13) DRAIN RESIDUAL NUMBER 6 HEATING OIL FROM BETWEEN THE 15000 GALLON UNDERGROUND STORAGE TANK (UST) AND THE BOILER HOUSE AND REMOVE ALL EXPOSED PIPING. THE CONTRACTOR SHALL INSTALL A BLOCK OFF PLATE WHERE THE PIPE GOES BENEATH THE RAILROAD TRACKS.
- 14) DEMOLISH AND/OR REMOVE STRUCTURES, EQUIPMENT AND BUILDING CONTENTS TO GROUND LEVEL OR WHERE SO INDICATED BY THE ENGINEER. ALL DEBRIS EQUIPMENT AND MATERIALS SHALL BECOME PROPERTY OF THE CONTRACTOR AND BE DISPOSED/RECYCLED/RE-USED OFFSITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRANSPORTATION AND DISPOSAL/RECYCLING COSTS. PAINTED SURFACES ARE ASSIGNED TO CONTAIN LEAD BASED PAINT AND WILL BE PROPERLY DEMOLISHED, HANDLED, AND DISPOSED IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS. MAINE DEEP REQUIREES THAT BUILDING COMPONENTS WITH LEAD BE DISPOSED OF IN A LICENSED CONSTRUCTION AND DEMOLITION (C&D) LANDFILL, AND THAT A PLAINFEST DOCUMENTING THE DISPOSAL OF THIS MATERIAL BE PROVIDED TO THE OWNER.
- 15) PLACE AND COMPACT BACKFILL (GRANULAR FILL OR CRUSHED INERT FILL DEMOLITION MATERIALS) IN BELOW GRADE AREAS.
- 16) STABILIZE DISTURBED AREAS AND RE-ESTABLISH EROSION AND SEDIMENT CONTROL'S AS NECESSARY.
- 17) OTHER WORK SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN OR AS OTHERWISE REQUIRED FOR FACILITY DEMOLITION.



VIEW #3



REDUCTION

NO.	REVISION	DATE

SHEET TITLE:		
SITE SCHEMATIC		
SCALE: 1" = 60'	DRAWN BY: PLAN-IT	
DATE: OCT. 2008	APPR. BY: JWB	

PROJECT:		
AMERICAN TISSUE FACILITY DEMOLISION		
ADDRESS:	AUGUSTA, MAINE	
CLIENT:	CITY OF AUGUSTA	

640 MAIN ST.  
LEWISTON, MAINE 04240

Tel: (207) 795-6009  
Fax: (207) 795-6128

MAINE  
OFFICE OF  
CONSUMER  
PROTECTION  
ENGINEER  
JANET  
NO. 5017

## **APPENDIX A**

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# Maine Environmental Laboratory

## Report of Analyses

One Main Street Yarmouth, Maine 04096-1107

Tel (207) 846-6569

Fax (207) 846-9066

e-mail: melab@maine.rr.com

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John Cressey

Summit Environmental Consultants, Inc.

434 Cony Road

Augusta, ME 04330

Report Date: October 28, 2008

Report No.: SME734-08

Enclosed are the results of the analyses requested on your samples as received by the laboratory. Samples were received in acceptable condition and analyzed within method holding times with all quality control data within laboratory acceptance limits unless noted.

Reporting detection limits are the minimum levels for reporting quantitative data. These limits are 3.18 times the method detection limit as defined in CFR 40 Part 136, Appendix B. Data reported between the reporting and method detection limits are J flagged as estimated.

Maine Environmental Laboratory is certified by Maine, Massachusetts, New Hampshire and NELAP (cert.#2031). A list of certified parameters is available on request. The results reported herein conform to the most current NELAP standards, where applicable, unless otherwise narrated in the body of the report. This report shall not be reproduced, except in full, without the written consent of the laboratory.

The complete report consists of the following sections:

Maine Environmental Laboratory report

Chain of custody forms

Analytics Environmental Laboratory report

Project Name/ID: American Tissue

Date Received: 10/17/08

Sampler Name: J. Cressey

## References

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EPA - EPA600/4-79-020, Methods for Chemical Analysis of Water and Wastes, USEPA, Cincinnati, Ohio, March 1983.

EPA2 - EPA600/R-94/111 Methods for the Determination of Metals in Environmental Samples, Supplement 1, May 1994

EPA1 - EPA/600/R-93/100 Methods for the Determination of Inorganic Substances in Environmental Samples, Aug. 1993.

CLP - USEPA CLP Statement of Work for Inorganics, ILMO3.0.

HEX - EPA-821-R-98-002, Method 1664, Rev. A: N-Hexane Extractable Material by Extraction and Gravimetry, Feb. 1999.

HACH - Chemical Oxygen Demand, Method 8000, Hach Handbook of Water Analysis, Hach Chemical Company, 1979.

STM - Standard Methods for the Examination of Water and Wastewater, 18th edition, APHA,AWWA,WPCF, 1992.

SW8 - SW846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, USEPA, third edition, 1986.

Authorized signature

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Herbert S. Kodis, laboratory director

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PROJECT/SITE	SAMPLE_POINT_ID	LAB_SAMPLE_ID	ANALYSIS_LAB	SAMPLE_DATE	SAMPLE_TYPE	PARAMETER_NAME	CONCENTRATION	LAB_QUALIFIERS	PARAMETER_UNITS	MDL	REPORTING_LIMIT	TEST	PREP_METHOD	ANALYSIS_DATE	CAS_NO	SAMPLED_BY	WEIGHT_BASIS
AMERICAN TISSUE	TANK-01	SME73408-01	ME	10/16/08	SU	ARSENIC	0.9	J	MG/KG	0.4	1.3	SW6010B	SW3050B	10/23/08	7440382	CRESSEY	DRY
AMERICAN TISSUE	TANK-01	SME73408-01	ME	10/16/08	SU	BARIUM	98.0		MG/KG	0.9	2.2	SW6010B	SW3050B	10/23/08	7440393	CRESSEY	DRY
AMERICAN TISSUE	TANK-01	SME73408-01	ME	10/16/08	SU	CADMIUM	0.6	J	MG/KG	0.4	1.3	SW6010B	SW3050B	10/23/08	7440439	CRESSEY	DRY
AMERICAN TISSUE	TANK-01	SME73408-01	ME	10/16/08	SU	CHROMIUM	21.0		MG/KG	0.4	1.3	SW6010B	SW3050B	10/23/08	7440473	CRESSEY	DRY
AMERICAN TISSUE	TANK-01	SME73408-01	ME	10/16/08	SU	LEAD	7.0		MG/KG	0.4	1.3	SW6010B	SW3050B	10/23/08	7439921	CRESSEY	DRY
AMERICAN TISSUE	TANK-01	SME73408-01	ME	10/16/08	SU	MERCURY	0.09	J	MG/KG	0.09	0.22	SW7471A		10/23/08	7439976	CRESSEY	DRY
AMERICAN TISSUE	TANK-01	SME73408-01	ME	10/16/08	SU	SELENIUM	1.7		MG/KG	0.4	1.3	SW6010B	SW3050B	10/23/08	7782492	CRESSEY	DRY
AMERICAN TISSUE	TANK-01	SME73408-01	ME	10/16/08	SU	SILVER	3.5		MG/KG	0.4	1.3	SW6010B	SW3050B	10/23/08	7440224	CRESSEY	DRY
AMERICAN TISSUE	TANK-01	SME73408-01	ME	10/16/08	SU	TOTAL SOLIDS	22.81		%	0.01		CLP 4F		10/20/08	DEP1005	CRESSEY	
AMERICAN TISSUE	BLDG 10 CISTERN	SME73408-02	ME	10/16/08	SU	ARSENIC	6.4		MG/KG	0.5	1.5	SW6010B	SW3050B	10/23/08	7440382	CRESSEY	DRY
AMERICAN TISSUE	BLDG 10 CISTERN	SME73408-02	ME	10/16/08	SU	BARIUM	75.2		MG/KG	1.0	2.5	SW6010B	SW3050B	10/23/08	7440393	CRESSEY	DRY
AMERICAN TISSUE	BLDG 10 CISTERN	SME73408-02	ME	10/16/08	SU	CADMIUM	5.0		MG/KG	0.5	1.5	SW6010B	SW3050B	10/23/08	7440439	CRESSEY	DRY
AMERICAN TISSUE	BLDG 10 CISTERN	SME73408-02	ME	10/16/08	SU	CHROMIUM	41.1		MG/KG	0.5	1.5	SW6010B	SW3050B	10/23/08	7440473	CRESSEY	DRY
AMERICAN TISSUE	BLDG 10 CISTERN	SME73408-02	ME	10/16/08	SU	LEAD	75.7		MG/KG	0.5	1.5	SW6010B	SW3050B	10/23/08	7439921	CRESSEY	DRY
AMERICAN TISSUE	BLDG 10 CISTERN	SME73408-02	ME	10/16/08	SU	MERCURY	0.45		MG/KG	0.10	0.25	SW7471A		10/23/08	7439976	CRESSEY	DRY
AMERICAN TISSUE	BLDG 10 CISTERN	SME73408-02	ME	10/16/08	SU	SELENIUM	1.0	J	MG/KG	0.5	1.5	SW6010B	SW3050B	10/23/08	7782492	CRESSEY	DRY
AMERICAN TISSUE	BLDG 10 CISTERN	SME73408-02	ME	10/16/08	SU	SILVER	0.5	J	MG/KG	0.5	1.5	SW6010B	SW3050B	10/23/08	7440224	CRESSEY	DRY
AMERICAN TISSUE	BLDG 10 CISTERN	SME73408-02	ME	10/16/08	SU	TOTAL SOLIDS	20.18		%	0.01		CLP 4F		10/20/08	DEP1005	CRESSEY	

PROJECT/SITE	SAMPLE_POINT_ID	LAB_SAMPLE_ID	ANALYSIS_LAB	SAMPLE_DATE	SAMPLE_TYPE	PARAMETER_NAME	CONCENTRATION	LAB_QUALIFIERS	PARAMETER_UNITS	MDL	REPORTING_LIMIT	TEST	PREP_METHOD	ANALYSIS_DATE	CAS_NO	SAMPLED_BY	WEIGHT_BASIS
AMERICAN TISSUE	BLDG 10 CISTERN	SME73408-03	ME	10/16/08	GW	ARSENIC	0.002	J	MG/L	0.002	0.005	SW6010B	SW3010A	10/27/08	7440382	CRESSEY	
AMERICAN TISSUE	BLDG 10 CISTERN	SME73408-03	ME	10/16/08	GW	BARIUM	0.014		MG/L	0.003	0.010	SW6010B	SW3010A	10/27/08	7440393	CRESSEY	
AMERICAN TISSUE	BLDG 10 CISTERN	SME73408-03	ME	10/16/08	GW	CADMIUM	0.0002	J	MG/L	0.0002	0.0006	SW6010B	SW3010A	10/27/08	7440439	CRESSEY	
AMERICAN TISSUE	BLDG 10 CISTERN	SME73408-03	ME	10/16/08	GW	CHROMIUM	0.002	J	MG/L	0.002	0.005	SW6010B	SW3010A	10/27/08	7440473	CRESSEY	
AMERICAN TISSUE	BLDG 10 CISTERN	SME73408-03	ME	10/16/08	GW	LEAD	0.002	J	MG/L	0.001	0.003	SW6010B	SW3010A	10/27/08	7439921	CRESSEY	
AMERICAN TISSUE	BLDG 10 CISTERN	SME73408-03	ME	10/16/08	GW	MERCURY		U	MG/L	0.0002	0.0005	SW7470A		10/24/08	7439976	CRESSEY	
AMERICAN TISSUE	BLDG 10 CISTERN	SME73408-03	ME	10/16/08	GW	SELENIUM		U	MG/L	0.002	0.005	SW6010B	SW3010A	10/27/08	7782492	CRESSEY	
AMERICAN TISSUE	BLDG 10 CISTERN	SME73408-03	ME	10/16/08	GW	SILVER		U	MG/L	0.0003	0.0010	SW6010B	SW3005A	10/21/08	7440224	CRESSEY	
AMERICAN TISSUE	BLDG 3	SME73408-04	ME	10/16/08	SL	ARSENIC	18.9		MG/KG	0.2	0.5	SW6010B	SW3050B	10/23/08	7440382	CRESSEY	DRY
AMERICAN TISSUE	BLDG 3	SME73408-04	ME	10/16/08	SL	BARIUM	412		MG/KG	1	3	SW6010B	SW3050B	10/23/08	7440393	CRESSEY	DRY
AMERICAN TISSUE	BLDG 3	SME73408-04	ME	10/16/08	SL	CADMIUM	3.9		MG/KG	0.2	0.5	SW6010B	SW3050B	10/23/08	7440439	CRESSEY	DRY
AMERICAN TISSUE	BLDG 3	SME73408-04	ME	10/16/08	SL	CHROMIUM	211		MG/KG	1	3	SW6010B	SW3050B	10/23/08	7440473	CRESSEY	DRY
AMERICAN TISSUE	BLDG 3	SME73408-04	ME	10/16/08	SL	LEAD	803		MG/KG	1	3	SW6010B	SW3050B	10/23/08	7439921	CRESSEY	DRY
AMERICAN TISSUE	BLDG 3	SME73408-04	ME	10/16/08	SL	MERCURY	3.54		MG/KG	0.03	0.08	SW7471A		10/23/08	7439976	CRESSEY	DRY
AMERICAN TISSUE	BLDG 3	SME73408-04	ME	10/16/08	SL	SELENIUM		U	MG/KG	0.2	0.5	SW6010B	SW3050B	10/23/08	7782492	CRESSEY	DRY
AMERICAN TISSUE	BLDG 3	SME73408-04	ME	10/16/08	SL	SILVER	1.1		MG/KG	0.2	0.5	SW6010B	SW3050B	10/23/08	7440224	CRESSEY	DRY
AMERICAN TISSUE	BLDG 3	SME73408-04	ME	10/16/08	SL	TOTAL SOLIDS	61.38		%	0.01		CLP 4F		10/20/08	DEP1005	CRESSEY	
AMERICAN TISSUE	SAND-01	SME73408-05	ME	10/16/08	SL	ARSENIC	3.6		MG/KG	0.1	0.3	SW6010B	SW3050B	10/23/08	7440382	CRESSEY	DRY
AMERICAN TISSUE	SAND-01	SME73408-05	ME	10/16/08	SL	BARIUM	4.3		MG/KG	0.2	0.5	SW6010B	SW3050B	10/23/08	7440393	CRESSEY	DRY
AMERICAN TISSUE	SAND-01	SME73408-05	ME	10/16/08	SL	CADMIUM	0.1	J	MG/KG	0.1	0.3	SW6010B	SW3050B	10/23/08	7440439	CRESSEY	DRY
AMERICAN TISSUE	SAND-01	SME73408-05	ME	10/16/08	SL	CHROMIUM	14.2		MG/KG	0.1	0.3	SW6010B	SW3050B	10/23/08	7440473	CRESSEY	DRY
AMERICAN TISSUE	SAND-01	SME73408-05	ME	10/16/08	SL	LEAD	0.5		MG/KG	0.1	0.3	SW6010B	SW3050B	10/23/08	7439921	CRESSEY	DRY
AMERICAN TISSUE	SAND-01	SME73408-05	ME	10/16/08	SL	MERCURY	0.10		MG/KG	0.02	0.05	SW7471A		10/23/08	7439976	CRESSEY	DRY
AMERICAN TISSUE	SAND-01	SME73408-05	ME	10/16/08	SL	SELENIUM	0.2	J	MG/KG	0.1	0.3	SW6010B	SW3050B	10/23/08	7782492	CRESSEY	DRY
AMERICAN TISSUE	SAND-01	SME73408-05	ME	10/16/08	SL	SILVER	0.1	J	MG/KG	0.1	0.3	SW6010B	SW3050B	10/23/08	7440224	CRESSEY	DRY
AMERICAN TISSUE	SAND-01	SME73408-05	ME	10/16/08	SL	TOTAL SOLIDS	98.46		%	0.01		CLP 4F		10/20/08	DEP1005	CRESSEY	



October 29, 2008

Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

**RE: Analytical Results Case Narrative  
SME 734-08  
Analytics #62501**

Dear Mr. Kodis:

Enclosed please find the analytical report for samples collected from the above-mentioned project. The attached Cover Page lists the sample IDs, Lab tracking numbers and collection dates for the samples included in this deliverable.

Samples were analyzed for Volatile Organic Compounds (VOCs) using EPA Method 8260B, Semi-Volatile Organic Compounds (SVOCs) using EPA Method 8270C and Diesel Range Organics (DRO) by Maine HETL Method 4.1.25.

Unless otherwise noted in the Non-conformance Summary listed below, all of the quality control (QC) criteria including initial calibration, calibration verification, surrogate recovery, holding time and method accuracy/precision for these analyses were within acceptable limits.

This Level II package has been assembled in the following order:

- Case Narrative/Non-Conformance Summary
- Sample Log Sheet - Cover Page
- VOC Form I Data Sheet for Samples and Blanks
  - Chromatograms
- VOC Form 3 MS/MSD (LCS) Recoveries
- SVOC Form I Data Sheet for Samples and Blanks
  - Chromatograms
- SVOC Form 3 MS/MSD (LCS) Recoveries
- DRO Form I Data Sheet for Samples and Blanks
  - Chromatograms
- DRO Form 3 MS/MSD (LCS) Recoveries
- Chain of Custody (COC) Forms
- Sample Receipt Checklist

## QC NON CONFORMANCE SUMMARY

### Sample Receipt:

No QC deviations.

### Volatile Organic Compounds (VOCs) by EPA 8260B:

The following analytes were not 'J' flagged in this report: Methylene chloride, Diethyl ether, Acetone, Hexachlorobutadiene, and Naphthalene. This narrative is specific to target analytes reported on the Form 1 data pages. Non-target (NT) analyte deviations were not addressed.

Bromoform used quadratic fit for quantitation.

Samples 62501-1 (Tank-01) and 62501-2 (Bldg 10 Cistern) had low surrogate recoveries due to the high moisture content in the sample. The samples were reanalyzed with similar results. Results were reported with a comment to this affect.

The laboratory control sample duplicate (L810218B2) had low recovery for Vinyl Chloride and Isopropylbenzene. The laboratory control sample (L810218B) was in control for all analytes. The MS/MSD analyzed on sample 62501-3 (Bldg 10 Cistern) had high recoveries for 2-Hexanone and Methyl isobutyl ketone. These analytes were not detected in any samples for this SDG and results were reported without qualification.

The laboratory control sample duplicate (L810278C2) had high recovery for Methyl ethyl ketone. Methylene Chloride also had high RPD in the laboratory control samples (L810278C/L810278C2). These analytes were not detected in any samples for this SDG and results were reported without qualification.

### Semi-Volatile Organic Compounds (SVOCs) by EPA 8270C:

This narrative is specific to target analytes reported on the Form 1 data pages. Non-target (NT) analyte deviations were not addressed. The following analytes were not 'J' flagged in this report: Benzoic Acid, Dimethyl phthalate, Diethyl Phthalate, Bis (2-ethyl hexyl) phthalate, Di-n-butyl phthalate, Di-n-octyl-phthalate, Butyl benzyl phthalate and Benzidine.

Due to the reactive nature of Benzidine the quantitation limit is estimated in the report. Analytics is not NELAC certified for Benzidine in RCRA aqueous samples. Results were reported with a comment to this affect.

The following compounds used quadratic fit for quantitation: Pyridine, Bis (2-chloroethyl) ether, Benzoic Acid, 2,4-Dinitrophenol and 4-Nitrophenol.

4-Nitroaniline, Benzidine and 4,6-Dinitro-2-methylphenol had %D outside the laboratory acceptance criteria in the continuing calibration standard (File# J20760SC). The laboratory control samples (L10208AW/LD10208AW) did not meet acceptance criteria for Benzidine. Results were reported without qualification except as stated above.

4-Nitroaniline and Benzidine had %D outside the laboratory acceptance criteria in the continuing calibration standard (File# J20800SC). The laboratory control samples (L10218AASE) did not meet acceptance criteria for Benzidine. The laboratory control sample was reanalyzed (L10218AASE) with Benzidine in control however 4-Nitroaniline and Azobenzene had high recovery. Results were reported without qualification except as stated above.

**DRO by HETL Method 4.1.25:**

The MSD analyzed on sample 62501-4 (Bldg 3) had high recovery and RPD for DRO due to the non-homogeneous matrix of the sample. The MS and laboratory control samples (L10218DAS/LD10218DAS and L10248DAS) were in control for all analytes.

If you have any questions or I can be of further assistance please do not hesitate to contact me.

Sincerely,  
ANALYTICS Environmental Laboratory, LLC



Stephen Knollmeyer  
Laboratory Director

Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

**Report Number: 62501**  
**Revision: Rev. 0**

**Re: SME 734-08**

Enclosed are the results of the analyses on your sample(s). Samples were received on 20 October 2008 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

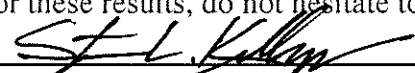
<u>Lab Number</u>	<u>Sample Date</u>	<u>Station Location</u>	<u>Analysis</u>	<u>Comments</u>
62501-1	10/16/08	TANK-01	EPA 8260 Volatile Organics	
	10/16/08	TANK-01	EPA 8270 Acid/Base Neutrals	
	10/16/08	TANK-01	Maine HETL Method 4.1.25	
62501-2	10/16/08	Bldg 10 Cistern	EPA 8260 Volatile Organics	
	10/16/08	Bldg 10 Cistern	EPA 8270 Acid/Base Neutrals	
	10/16/08	Bldg 10 Cistern	Maine HETL Method 4.1.25	
62501-3	10/16/08	Bldg 10 Cistern	EPA 8260 Volatile Organics	
	10/16/08	Bldg 10 Cistern	EPA 8270 Acid/Base Neutrals	
	10/16/08	Bldg 10 Cistern	Maine HETL Method 4.1.25	
62501-4	10/16/08	Bldg 3	EPA 8260 Volatile Organics	
	10/16/08	Bldg 3	EPA 8270 Acid/Base Neutrals	
	10/16/08	Bldg 3	Maine HETL Method 4.1.25	
62501-5	10/16/08	SAND-01	EPA 8270 Acid/Base Neutrals	

**Sample Receipt Exceptions:** None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New York, Virginia, Pennsylvania, and is validated by the U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature

  
Stephen L. Knollmeyer Laboratory Director

Date

10/29/2008

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Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

**Report Number: 62501**

**Revision: Rev. 0**

**Re: SME 734-08**

Enclosed are the results of the analyses on your sample(s). Samples were received on 20 October 2008 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

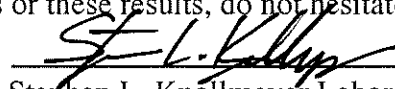
<u>Lab Number</u>	<u>Sample Date</u>	<u>Station Location</u>	<u>Analysis</u>	<u>Comments</u>
	10/16/08	SAND-01	Maine HETL Method 4.1.25	
62501-6	10/16/08	Trip Blank	EPA 8260 Volatile Organics	
62501-7	10/16/08	Trip Blank	Electronic Data Deliverable	
	10/16/08	Trip Blank	EPA 8260 Volatile Organics	

**Sample Receipt Exceptions:** None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New York, Virginia, Pennsylvania, and is validated by the U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature

  
Stephen L. Knollmeyer Laboratory Director

Date

10/29/2008

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### Surrogate Compound Limits

	Matrix:	Aqueous	Solid	
	Units:	% Recovery	% Recovery	Method
<b>Volatile Organic Compounds - Drinking Water</b>				
1,4-Difluorobenzene		70-130		EPA 524.2
Bromofluorobenzene		70-130		
1,2-Dichlorobenzene-d4		70-130		
<b>Volatile Organic Compounds</b>				
1,2-Dichloroethane-d4		70-130	70-130	EPA 8260B
Toluene-d8		70-130	70-130	
Bromofluorobenzene		70-130	70-130	
<b>Semi-Volatile Organic Compounds</b>				
2-Fluorophenol		20-110	35-105	EPA 624/8270C
d5-Phenol		15-110	40-100	
d5-nitrobenzene		40-110	35-100	
2-Fluorobiphenyl		50-110	45-105	
2,4,6-Tribromophenol		40-110	40-125	
d14-p-terphenyl		50-130	30-125	
<b>PAH's by SIM</b>				
d5-nitrobenzene		21-110	35-110	EPA 8270C
2-Fluorobiphenyl		36-121	45-105	
d14-p-terphenyl		33-141	30-125	
<b>Pesticides and PCBs</b>				
2,4,5,6-Tetrachloro-m-xylene (TCX)		46-122	40-130	EPA 608/8082
Decachlorobiphenyl (DCB)		40-135	40-130	
<b>Herbicides</b>				
Dichloroacetic acid (DCAA0)		30-150	30-150	
<b>Gasoline Range Organics/TPH Gasoline</b>				
Trifluorotoluene TFT (FID)		60-140	60-140	MEDEP 4217/EPA 8015
Bromofluorobenzene (BFB) (FID)		60-140	60-140	
Trifluorotoluene TFT (PID)		60-140	60-140	
Bromofluorobenzene (BFB) (PID)		60-140	60-140	
<b>Diesel Range Organics/TPH Diesel</b>				
m-terphenyl		60-140	60-140	MEDEP 4125/EPA 8015/CT ETPH

## VOLATILE DATA SUMMARIES

Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

October 27, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** SME 734-08

**Project Number:**

**Field Sample ID:** LAB QC

**Lab Sample ID:** B810218B

**Matrix:** Aqueous

**Percent Solid:** N/A

**Dilution Factor:** 1

**Collection Date:** N/A

**Lab Receipt Date:** N/A

**Analysis Date:** 10/21/08

**ANALYTICAL RESULTS VOLATILE ORGANICS**

COMPOUND	Quantitation Limit µg/L	Result µg/L	COMPOUND	Quantitation Limit µg/L	Result µg/L
Benzene	1	U	1,3-Dichloropropane	1	U
Bromobenzene	1	U	cis-1,3-Dichloropropene	1	U
Bromochloromethane	1	U	trans-1,3-Dichloropropene	1	U
Bromodichloromethane	1	U	2,2-Dichloropropane	1	U
Bromoform	1	U	1,1-Dichloropropene	1	U
Bromomethane	1	U	Ethylbenzene	1	U
n-butylbenzene	1	U	Hexachlorobutadiene	1	U
sec-butylbenzene	1	U	Isopropylbenzene	1	U
tert-butylbenzene	1	U	p-isopropyltoluene	1	U
Carbon Tetrachloride	1	U	Methylene Chloride	5	U
Chlorobenzene	1	U	Methyl-tert-butyl ether (MTBE)	1	U
Chloroethane	1	U	Naphthalene	1	U
Chloroform	1	U	n-Propylbenzene	1	U
Chloromethane	1	U	Styrene	1	U
2-Chlorotoluene	1	U	1,1,1,2-Tetrachloroethane	1	U
4-Chlorotoluene	1	U	1,1,2,2-Tetrachloroethane	1	U
Dibromochloromethane	1	U	Tetrachloroethene	1	U
1,2-Dibromo-3-chloropropane	1	U	Toluene	1	U
1,2-Dibromoethane	1	U	1,2,3-Trichlorobenzene	1	U
Dibromomethane	1	U	1,2,4-Trichlorobenzene	1	U
1,2-Dichlorobenzene	1	U	1,1,1-Trichloroethane	1	U
1,3-Dichlorobenzene	1	U	1,1,2-Trichloroethane	1	U
1,4-Dichlorobenzene	1	U	Trichloroethene	1	U
Dichlorodifluoromethane	1	U	Trichlorofluoromethane	1	U
1,1-Dichloroethane	1	U	1,2,3-Trichloropropane	1	U
1,2-Dichloroethane	1	U	1,2,4-Trimethylbenzene	1	U
1,1-Dichloroethene	1	U	1,3,5-Trimethylbenzene	1	U
cis-1,2-Dichloroethene	1	U	Vinyl Chloride	1	U
trans-1,2-Dichloroethene	1	U	o-Xylene	1	U
1,2-Dichloropropane	1	U	m,p-Xylene	1	U
Acetone	10	U	Diethyl ether	1	U
Carbon Disulfide	1	U	2-Hexanone	10	U
Tetrahydrofuran	2.5	U	Methyl isobutyl ketone	10	U
Methyl ethyl ketone	10	U	Di-isopropyl ether (DIPE)	1	U
t-Butyl alcohol (TBA)	20	U	Ethyl t-butyl ether (ETBE)	1	U
t-Amyl methyl ether (TAME)	1	U			
<b>Surrogate Standard Recovery</b>					
d4-1,2-Dichloroethane	94 %		d8-Toluene	100 %	
			Bromofluorobenzene	96 %	
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

**COMMENTS:**

*[Signature]*



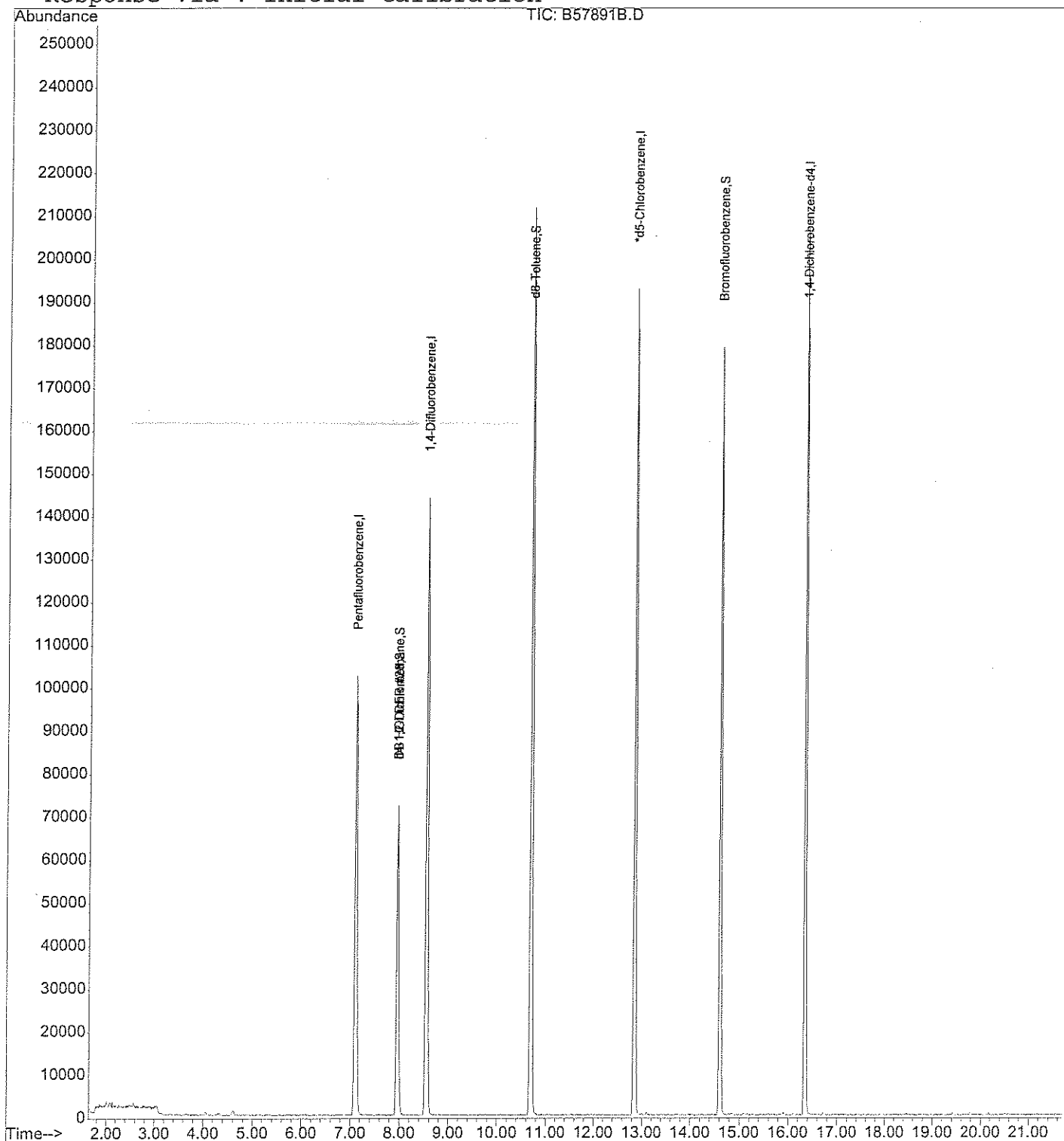
## Quantitation Report

Data File : C:\HPCHEM\1\DATA\102108-B\B57891B.D  
Acq On : 21 Oct 2008 1:13 pm  
Sample : B810218B  
Misc : 5000  
MS Integration Params: rteint.p  
Quant Time: Oct 21 13:34 2008

Vial: 7  
Operator:  
Inst : Instrumen  
Multiplr: 1.00

Quant Results File: V810168B.RES

Method : C:\HPCHEM\1\METHODS\V810168B.M (RTE Integrator)  
Title : 8260 Purgable Organics  
Last Update : Thu Oct 16 16:38:42 2008  
Response via : Initial Calibration



Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

October 27, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**

Project Name: SME 734-08

Project Number:

Field Sample ID: LAB QC

Lab Sample ID: MB10248C

Matrix: Solid

Percent Solid: 100

Dilution Factor: 100

Collection Date: N/A

Lab Receipt Date: N/A

Analysis Date: 10/24/08

**ANALYTICAL RESULTS VOLATILE ORGANICS**

COMPOUND	Quantitation Limit µg/kg	Result µg/kg	COMPOUND	Quantitation Limit µg/kg	Result µg/kg
Benzene	100	U	1,3-Dichloropropane	100	U
Bromobenzene	100	U	cis-1,3-Dichloropropene	100	U
Bromochloromethane	100	U	trans-1,3-Dichloropropene	100	U
Bromodichloromethane	75	U	2,2-Dichloropropane	100	U
Bromoform	75	U	1,1-Dichloropropene	100	U
Bromomethane	100	U	Ethylbenzene	100	U
n-butylbenzene	100	U	Hexachlorobutadiene	100	U
sec-butylbenzene	100	U	Isopropylbenzene	100	U
tert-butylbenzene	100	U	p-isopropyltoluene	100	U
Carbon Tetrachloride	100	U	Methylene Chloride	500	U
Chlorobenzene	100	U	Methyl-tert-butyl ether (MTBE)	100	U
Chloroethane	100	U	Naphthalene	100	U
Chloroform	75	U	n-Propylbenzene	100	U
Chloromethane	100	U	Styrene	100	U
2-Chlorotoluene	100	U	1,1,1,2-Tetrachloroethane	100	U
4-Chlorotoluene	100	U	1,1,2,2-Tetrachloroethane	75	U
Dibromochloromethane	75	U	Tetrachloroethene	100	U
1,2-Dibromo-3-chloropropane	100	U	Toluene	100	U
1,2-Dibromoethane	75	U	1,2,3-Trichlorobenzene	100	U
Dibromomethane	100	U	1,2,4-Trichlorobenzene	100	U
1,2-Dichlorobenzene	100	U	1,1,1-Trichloroethane	100	U
1,3-Dichlorobenzene	100	U	1,1,2-Trichloroethane	75	U
1,4-Dichlorobenzene	100	U	Trichloroethene	100	U
Dichlorodifluoromethane	100	U	Trichlorofluoromethane	100	U
1,1-Dichloroethane	100	U	1,2,3-Trichloropropane	100	U
1,2-Dichloroethane	75	U	1,2,4-Trimethylbenzene	100	U
1,1-Dichloroethene	75	U	1,3,5-Trimethylbenzene	100	U
cis-1,2-Dichloroethene	100	U	Vinyl Chloride	100	U
trans-1,2-Dichloroethene	100	U	o-Xylene	100	U
1,2-Dichloropropane	75	U	m,p-Xylene	100	U
Acetone	1000	U	Diethyl ether	100	U
Carbon Disulfide	100	U	2-Hexanone	1000	U
Tetrahydrofuran	500	U	Methyl isobutyl ketone	1000	U
Methyl ethyl ketone	1000	U	Di-isopropyl ether (DIPE)	100	U
t-Butyl alcohol (TBA)	2000	U	Ethyl t-butyl ether (ETBE)	100	U
t-Amyl methyl ether (TAME)	100	U			
<b>Surrogate Standard Recovery</b>					
d4-1,2-Dichloroethane	98 %	d8-Toluene	100 %	Bromofluorobenzene	99 %
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

**COMMENTS:** Results are expressed on a dry weight basis.

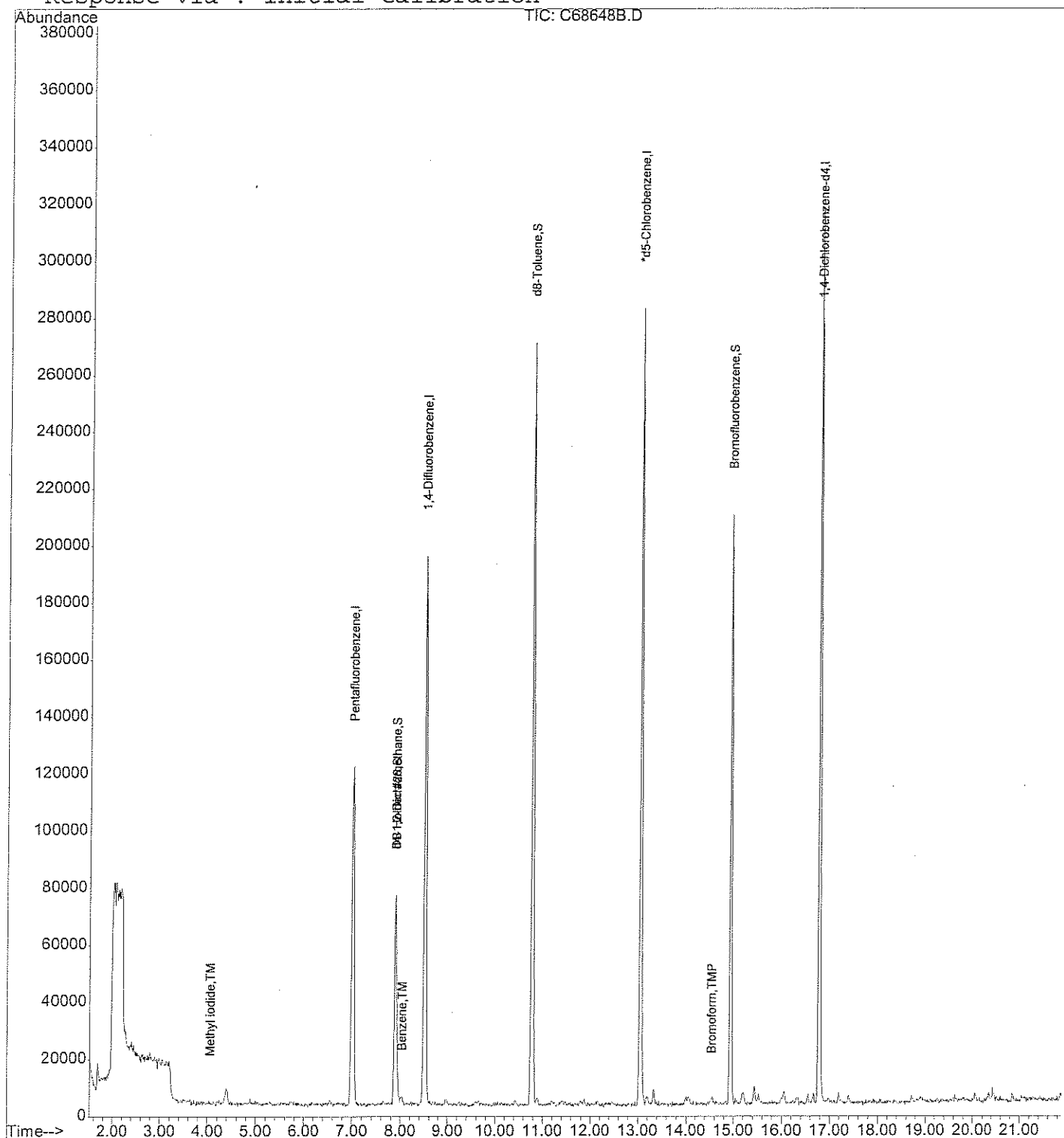
# Quantitation Report

Data File : D:\HPCHEM\1\DATA\102408C\C68648B.D  
 Acq On : 24 Oct 2008 3:21 pm  
 Sample : MB10248C  
 Misc : 50,5.00,SOIL  
 MS Integration Params: rteint.p  
 Quant Time: Oct 24 15:12 2008

Vial: 10  
 Operator:  
 Inst : Instr\_C  
 Multiplr: 1.00

Quant Results File: V809128C.RES

Method : D:\HPCHEM\1\METHODS\V809128C.M (RTE Integrator)  
 Title : 8260 Purgable Organics  
 Last Update : Thu Oct 23 10:17:48 2008  
 Response via : Initial Calibration



Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

October 29, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** SME 734-08  
**Project Number:**  
**Field Sample ID:** LAB QC

**Lab Sample ID:** B810278C  
**Matrix:** Solid  
**Percent Solid:** 100  
**Dilution Factor:** 100  
**Collection Date:** N/A  
**Lab Receipt Date:** N/A  
**Analysis Date:** 10/27/08

**ANALYTICAL RESULTS VOLATILE ORGANICS**

COMPOUND	Quantitation Limit µg/kg	Result µg/kg	COMPOUND	Quantitation Limit µg/kg	Result µg/kg
Benzene	100	U	1,3-Dichloropropane	100	U
Bromobenzene	100	U	cis-1,3-Dichloropropene	100	U
Bromochloromethane	100	U	trans-1,3-Dichloropropene	100	U
Bromodichloromethane	75	U	2,2-Dichloropropane	100	U
Bromoform	75	U	1,1-Dichloropropene	100	U
Bromomethane	100	U	Ethylbenzene	100	U
n-butylbenzene	100	U	Hexachlorobutadiene	100	U
sec-butylbenzene	100	U	Isopropylbenzene	100	U
tert-butylbenzene	100	U	p-isopropyltoluene	100	U
Carbon Tetrachloride	100	U	Methylene Chloride	500	U
Chlorobenzene	100	U	Methyl-tert-butyl ether (MTBE)	100	U
Chloroethane	100	U	Naphthalene	100	U
Chloroform	75	U	n-Propylbenzene	100	U
Chloromethane	100	U	Styrene	100	U
2-Chlorotoluene	100	U	1,1,1,2-Tetrachloroethane	100	U
4-Chlorotoluene	100	U	1,1,2,2-Tetrachloroethane	75	U
Dibromochloromethane	75	U	Tetrachloroethene	100	U
1,2-Dibromo-3-chloropropane	100	U	Toluene	100	U
1,2-Dibromoethane	75	U	1,2,3-Trichlorobenzene	100	U
Dibromomethane	100	U	1,2,4-Trichlorobenzene	100	U
1,2-Dichlorobenzene	100	U	1,1,1-Trichloroethane	100	U
1,3-Dichlorobenzene	100	U	1,1,2-Trichloroethane	75	U
1,4-Dichlorobenzene	100	U	Trichloroethene	100	U
Dichlorodifluoromethane	100	U	Trichlorofluoromethane	100	U
1,1-Dichloroethane	100	U	1,2,3-Trichloropropane	100	U
1,2-Dichloroethane	75	U	1,2,4-Trimethylbenzene	100	U
1,1-Dichloroethene	75	U	1,3,5-Trimethylbenzene	100	U
cis-1,2-Dichloroethene	100	U	Vinyl Chloride	100	U
trans-1,2-Dichloroethene	100	U	o-Xylene	100	U
1,2-Dichloropropane	75	U	m,p-Xylene	100	U
Acetone	1000	U	Diethyl ether	100	U
Carbon Disulfide	100	U	2-Hexanone	1000	U
Tetrahydrofuran	500	U	Methyl isobutyl ketone	1000	U
Methyl ethyl ketone	1000	U	Di-isopropyl ether (DIPE)	100	U
t-Butyl alcohol (TBA)	2000	U	Ethyl t-butyl ether (ETBE)	100	U
t-Amyl methyl ether (TAME)	100	U			

**Surrogate Standard Recovery**

d4-1,2-Dichloroethane	99	%	d8-Toluene	100	%	Bromofluorobenzene	99	%
U=Undetected	J=Estimated	E=Exceeds Calibration Range	B=Detected in Blank					

**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

**COMMENTS:** Results are expressed on a dry weight basis.

Authorized signature

*M. Labell*

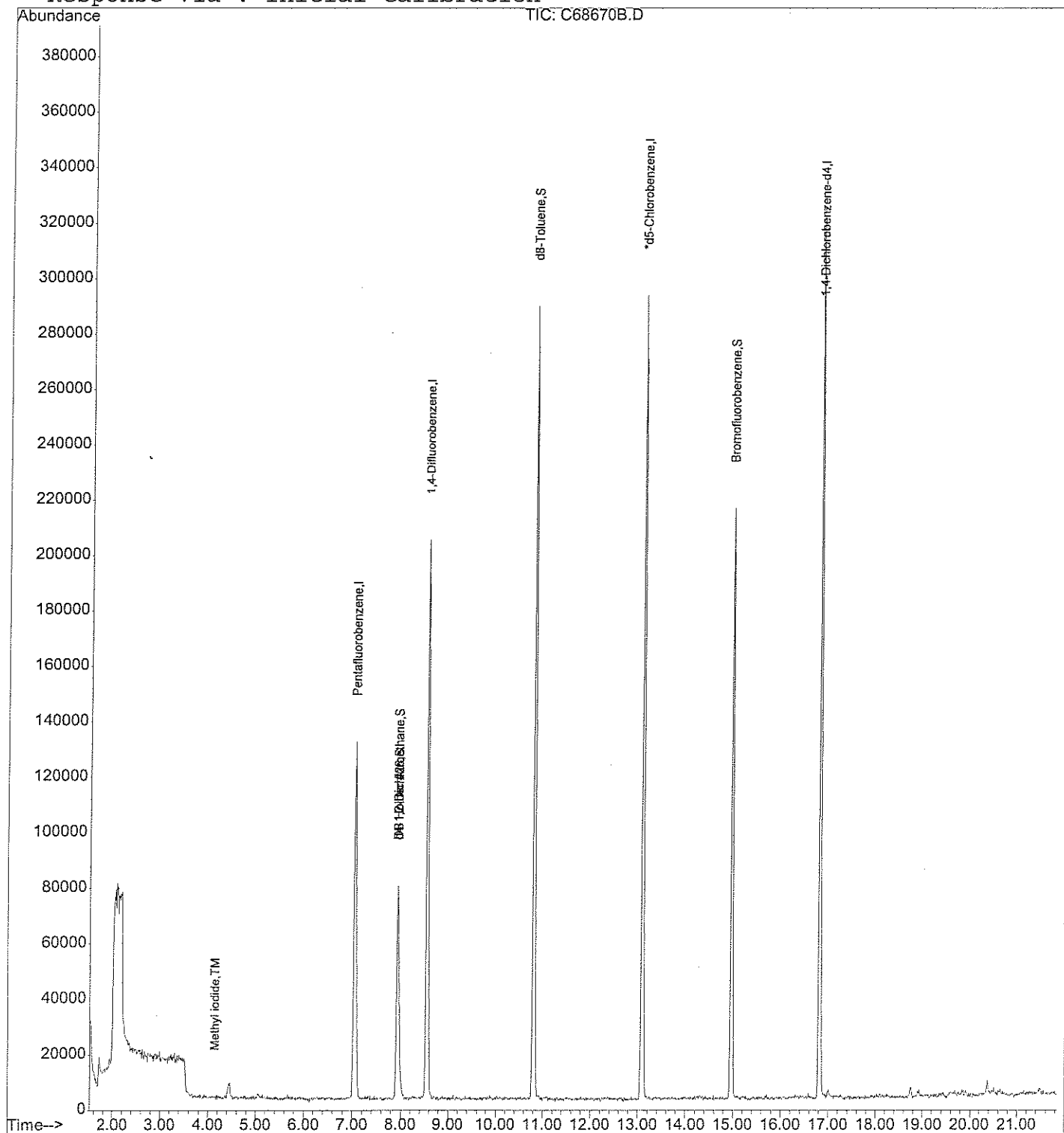
## Quantitation Report

Data File : D:\HPCHEM\1\DATA\102708C\C68670B.D  
Acq On : 27 Oct 2008 1:22 pm  
Sample : B810278C  
Misc : 5000,,W/ MEOH  
MS Integration Params: rteint.p  
Quant Time: Oct 27 13:43 2008

Vial: 10  
Operator:  
Inst : Instr\_C  
Multiplr: 1.00

Quant Results File: V809128C.RES

Method : D:\HPCHEM\1\METHODS\V809128C.M (RTE Integrator)  
Title : 8260 Purgable Organics  
Last Update : Thu Oct 23 10:17:48 2008  
Response via : Initial Calibration



Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

October 29, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**

Project Name: SME 734-08

Project Number:

Field Sample ID: TANK-01

Lab Sample ID: 62501-1

Matrix: Solid

Percent Solid: 22

Dilution Factor: 423

Collection Date: 10/16/08

Lab Receipt Date: 10/20/08

Analysis Date: 10/27/08

**ANALYTICAL RESULTS VOLATILE ORGANICS**

COMPOUND	Quantitation Limit µg/kg	Result µg/kg	COMPOUND	Quantitation Limit µg/kg	Result µg/kg
Benzene	423	U	1,3-Dichloropropane	423	U
Bromobenzene	423	U	cis-1,3-Dichloropropene	423	U
Bromochloromethane	423	U	trans-1,3-Dichloropropene	423	U
Bromodichloromethane	318	U	2,2-Dichloropropane	423	U
Bromoform	318	U	1,1-Dichloropropene	423	U
Bromomethane	423	U	Ethylbenzene	423	U
n-butylbenzene	423	U	Hexachlorobutadiene	423	U
sec-butylbenzene	423	U	Isopropylbenzene	423	U
tert-butylbenzene	423	U	p-isopropyltoluene	423	U
Carbon Tetrachloride	423	U	Methylene Chloride	2120	U
Chlorobenzene	423	U	Methyl-tert-butyl ether (MTBE)	423	U
Chloroethane	423	U	Naphthalene	423	U
Chloroform	318	U	n-Propylbenzene	423	U
Chloromethane	423	U	Styrene	423	U
2-Chlorotoluene	423	U	1,1,1,2-Tetrachloroethane	423	U
4-Chlorotoluene	423	U	1,1,2,2-Tetrachloroethane	318	U
Dibromochloromethane	318	U	Tetrachloroethene	423	U
1,2-Dibromo-3-chloropropane	423	U	Toluene	423	U
1,2-Dibromoethane	318	U	1,2,3-Trichlorobenzene	423	U
Dibromomethane	423	U	1,2,4-Trichlorobenzene	423	U
1,2-Dichlorobenzene	423	U	1,1,1-Trichloroethane	423	U
1,3-Dichlorobenzene	423	U	1,1,2-Trichloroethane	318	U
1,4-Dichlorobenzene	423	U	Trichloroethene	423	U
Dichlorodifluoromethane	423	U	Trichlorofluoromethane	423	U
1,1-Dichloroethane	423	U	1,2,3-Trichloropropane	423	U
1,2-Dichloroethane	318	U	1,2,4-Trimethylbenzene	423	U
1,1-Dichloroethene	318	U	1,3,5-Trimethylbenzene	423	U
cis-1,2-Dichloroethene	423	U	Vinyl Chloride	423	U
trans-1,2-Dichloroethene	423	U	o-Xylene	423	U
1,2-Dichloropropane	318	U	m,p-Xylene	423	U
Acetone	4230	U	Diethyl ether	423	U
Carbon Disulfide	423	U	2-Hexanone	4230	U
Tetrahydrofuran	2120	U	Methyl isobutyl ketone	4230	U
Methyl ethyl ketone	4230	U	Di-isopropyl ether (DIPE)	423	U
t-Butyl alcohol (TBA)	8470	U	Ethyl t-butyl ether (ETBE)	423	U
t-Amyl methyl ether (TAME)	423	U			
<b>Surrogate Standard Recovery</b>					
d4-1,2-Dichloroethane	46 * %	d8-Toluene	31 * %	Bromofluorobenzene	29 * %
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

**COMMENTS:** Results are expressed on a dry weight basis. Sample collection and analysis in accordance with SW-846 method 5035A.

\*Surrogate recovery outside of laboratory acceptance criteria due to high moisture content in the sample. Sample was reanalyzed to confirm results.

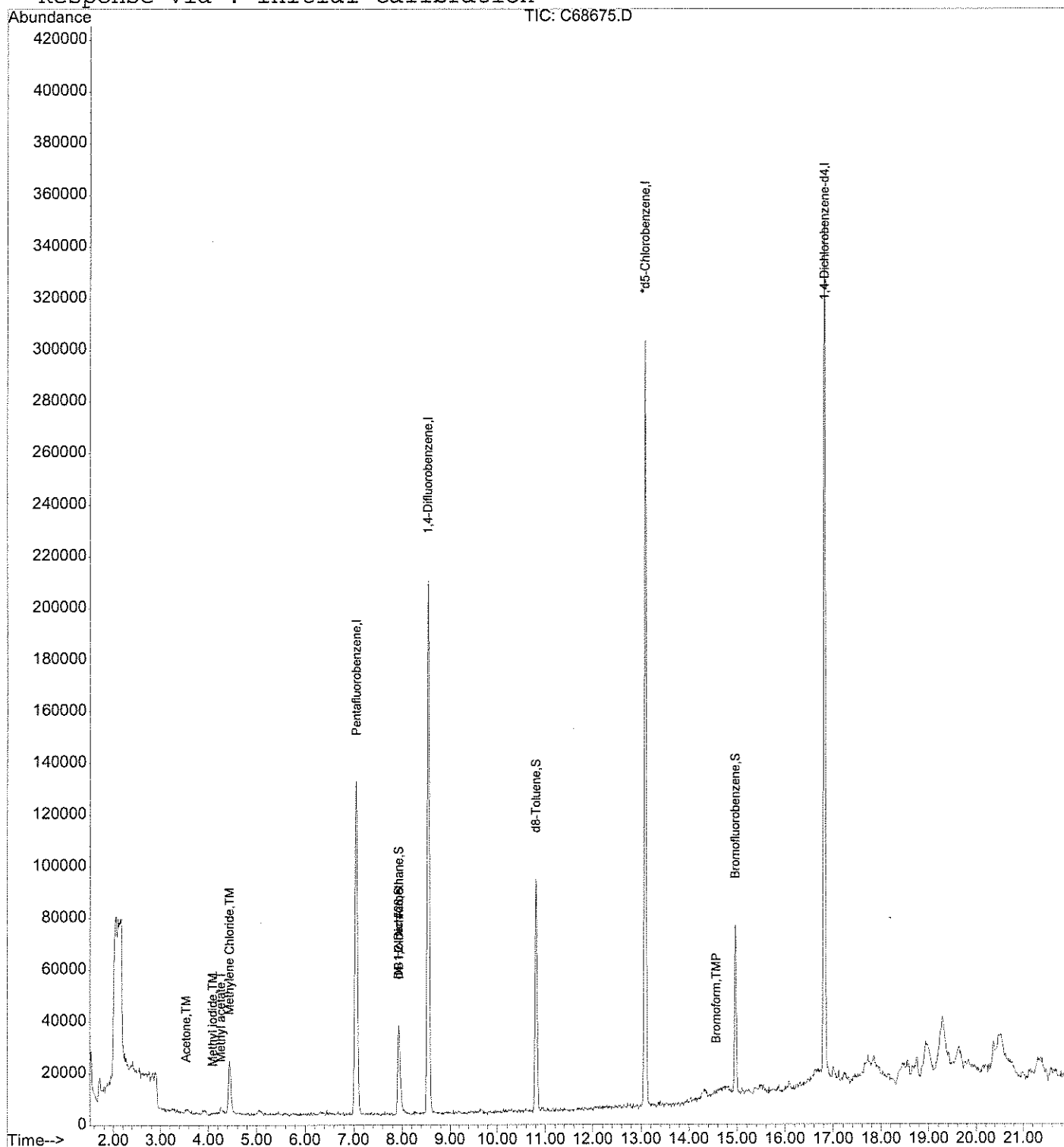
# Quantitation Report

Data File : D:\HPCHEM\1\DATA\102708C\C68675.D  
 Acq On : 27 Oct 2008 3:59 pm  
 Sample : 62501-1  
 Misc : 50,5.32,SOIL  
 MS Integration Params: rteint.p  
 Quant Time: Oct 28 8:09 2008

Vial: 15  
 Operator:  
 Inst : Instr\_C  
 Multiplr: 1.00

Quant Results File: V809128C.RES

Method : D:\HPCHEM\1\METHODS\V809128C.M (RTE Integrator)  
 Title : 8260 Purgable Organics  
 Last Update : Thu Oct 23 10:17:48 2008  
 Response via : Initial Calibration



Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

October 29, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**

Project Name: SME 734-08

Project Number:

Field Sample ID: Bldg 10 Cistern

Lab Sample ID: 62501-2

Matrix: Solid

Percent Solid: 27

Dilution Factor: 489

Collection Date: 10/16/08

Lab Receipt Date: 10/20/08

Analysis Date: 10/27/08

**ANALYTICAL RESULTS VOLATILE ORGANICS**

COMPOUND	Quantitation Limit µg/kg	Result µg/kg	COMPOUND	Quantitation Limit µg/kg	Result µg/kg
Benzene	489	U	1,3-Dichloropropane	489	U
Bromobenzene	489	U	cis-1,3-Dichloropropene	489	U
Bromochloromethane	489	U	trans-1,3-Dichloropropene	489	U
Bromodichloromethane	367	U	2,2-Dichloropropane	489	U
Bromoform	367	U	1,1-Dichloropropene	489	U
Bromomethane	489	U	Ethylbenzene	489	U
n-butylbenzene	489	U	Hexachlorobutadiene	489	U
sec-butylbenzene	489	U	Isopropylbenzene	489	U
tert-butylbenzene	489	U	p-isopropyltoluene	489	U
Carbon Tetrachloride	489	U	Methylene Chloride	2450	U
Chlorobenzene	489	U	Methyl-tert-butyl ether (MTBE)	489	U
Chloroethane	489	U	Naphthalene	489	307 J
Chloroform	367	U	n-Propylbenzene	489	U
Chloromethane	489	U	Styrene	489	U
2-Chlorotoluene	489	314 J	1,1,1,2-Tetrachloroethane	489	U
4-Chlorotoluene	489	U	1,1,2,2-Tetrachloroethane	367	U
Dibromochloromethane	367	U	Tetrachloroethene	489	U
1,2-Dibromo-3-chloropropane	489	U	Toluene	489	6640
1,2-Dibromoethane	367	U	1,2,3-Trichlorobenzene	489	U
Dibromomethane	489	U	1,2,4-Trichlorobenzene	489	U
1,2-Dichlorobenzene	489	U	1,1,1-Trichloroethane	489	U
1,3-Dichlorobenzene	489	U	1,1,2-Trichloroethane	367	U
1,4-Dichlorobenzene	489	U	Trichloroethene	489	U
Dichlorodifluoromethane	489	U	Trichlorofluoromethane	489	U
1,1-Dichloroethane	489	U	1,2,3-Trichloropropane	489	U
1,2-Dichloroethane	367	U	1,2,4-Trimethylbenzene	489	323 J
1,1-Dichloroethene	367	U	1,3,5-Trimethylbenzene	489	U
cis-1,2-Dichloroethene	489	U	Vinyl Chloride	489	U
trans-1,2-Dichloroethene	489	U	o-Xylene	489	U
1,2-Dichloropropane	367	U	m,p-Xylene	489	U
Acetone	4890	U	Diethyl ether	489	U
Carbon Disulfide	489	U	2-Hexanone	4890	U
Tetrahydrofuran	2450	U	Methyl isobutyl ketone	4890	U
Methyl ethyl ketone	4890	U	Di-isopropyl ether (DIPE)	489	U
t-Butyl alcohol (TBA)	9780	U	Ethyl t-butyl ether (ETBE)	489	U
t-Amyl methyl ether (TAME)	489	U			
<b>Surrogate Standard Recovery</b>					
d4-1,2-Dichloroethane	58 * %	d8-Toluene	49 * %	Bromofluorobenzene	50 * %
U=Undetected	J=Estimated	E=Exceeds Calibration Range	B=Detected in Blank		

**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

**COMMENTS:** Results are expressed on a dry weight basis. Sample collection and analysis in accordance with SW-846 method 5035A.

\*Surrogate recovery outside of laboratory acceptance criteria due to high moisture content in the sample. Sample was reanalyzed to confirm results.



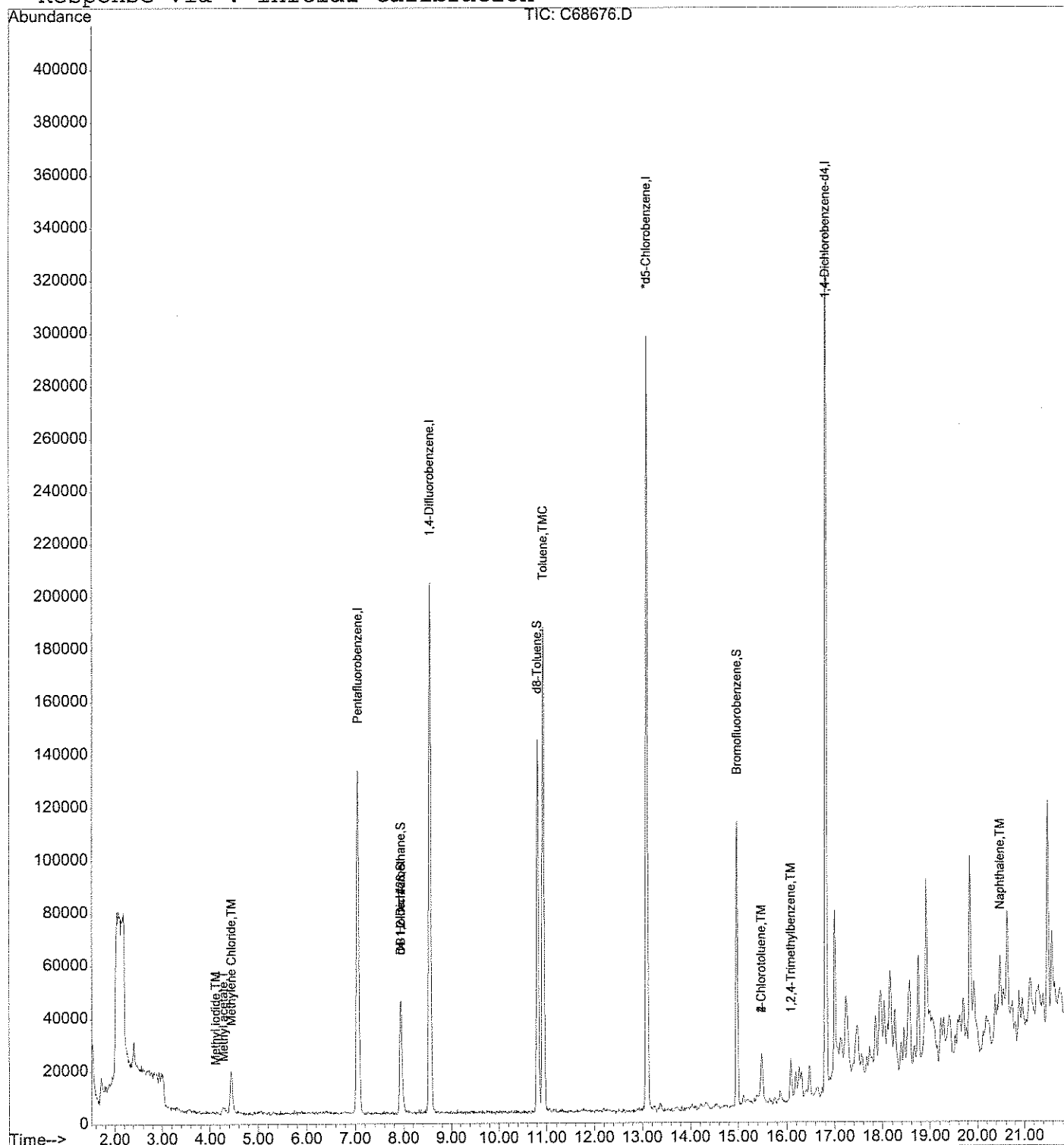
# Quantitation Report

Data File : D:\HPCHEM\1\DATA\102708C\C68676.D  
 Acq On : 27 Oct 2008 4:32 pm  
 Sample : 62501-2  
 Misc : 50,3.77,SOIL  
 MS Integration Params: rteint.p  
 Quant Time: Oct 28 8:09 2008

Vial: 16  
 Operator:  
 Inst : Instr\_C  
 Multiplr: 1.00

Quant Results File: V809128C.RES

Method : D:\HPCHEM\1\METHODS\V809128C.M (RTE Integrator)  
 Title : 8260 Purgable Organics  
 Last Update : Thu Oct 23 10:17:48 2008  
 Response via : Initial Calibration



Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

October 27, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** SME 734-08  
**Project Number:**  
**Field Sample ID:** Bldg 10 Cistern

**Lab Sample ID:** 62501-3  
**Matrix:** Aqueous  
**Percent Solid:** N/A  
**Dilution Factor:** 1  
**Collection Date:** 10/16/08  
**Lab Receipt Date:** 10/20/08  
**Analysis Date:** 10/21/08

ANALYTICAL RESULTS VOLATILE ORGANICS					
COMPOUND	Quantitation Limit µg/L	Result µg/L	COMPOUND	Quantitation Limit µg/L	Result µg/L
Benzene	1	U	1,3-Dichloropropane	1	U
Bromobenzene	1	U	cis-1,3-Dichloropropene	1	U
Bromochloromethane	1	U	trans-1,3-Dichloropropene	1	U
Bromodichloromethane	1	U	2,2-Dichloropropane	1	U
Bromoform	1	U	1,1-Dichloropropene	1	U
Bromomethane	1	U	Ethylbenzene	1	U
n-butylbenzene	1	U	Hexachlorobutadiene	1	U
sec-butylbenzene	1	U	Isopropylbenzene	1	U
tert-butylbenzene	1	U	p-isopropyltoluene	1	U
Carbon Tetrachloride	1	U	Methylene Chloride	5	U
Chlorobenzene	1	U	Methyl-tert-butyl ether (MTBE)	1	U
Chloroethane	1	U	Naphthalene	1	U
Chloroform	1	U	n-Propylbenzene	1	U
Chloromethane	1	U	Styrene	1	U
2-Chlorotoluene	1	U	1,1,1,2-Tetrachloroethane	1	U
4-Chlorotoluene	1	U	1,1,2,2-Tetrachloroethane	1	U
Dibromochloromethane	1	U	Tetrachloroethene	1	U
1,2-Dibromo-3-chloropropane	1	U	Toluene	1	U
1,2-Dibromoethane	1	U	1,2,3-Trichlorobenzene	1	U
Dibromomethane	1	U	1,2,4-Trichlorobenzene	1	U
1,2-Dichlorobenzene	1	U	1,1,1-Trichloroethane	1	U
1,3-Dichlorobenzene	1	U	1,1,2-Trichloroethane	1	U
1,4-Dichlorobenzene	1	U	Trichloroethene	1	U
Dichlorodifluoromethane	1	U	Trichlorofluoromethane	1	U
1,1-Dichloroethane	1	U	1,2,3-Trichloropropane	1	U
1,2-Dichloroethane	1	U	1,2,4-Trimethylbenzene	1	U
1,1-Dichloroethene	1	U	1,3,5-Trimethylbenzene	1	U
cis-1,2-Dichloroethene	1	U	Vinyl Chloride	1	U
trans-1,2-Dichloroethene	1	U	o-Xylene	1	U
1,2-Dichloropropane	1	U	m,p-Xylene	1	U
Acetone	10	U	Diethyl ether	1	U
Carbon Disulfide	1	U	2-Hexanone	10	U
Tetrahydrofuran	2.5	U	Methyl isobutyl ketone	10	U
Methyl ethyl ketone	10	U	Di-isopropyl ether (DIPE)	1	U
t-Butyl alcohol (TBA)	20	U	Ethyl t-butyl ether (ETBE)	1	U
t-Amyl methyl ether (TAME)	1	U			
Surrogate Standard Recovery					
d4-1,2-Dichloroethane	96 %		d8-Toluene	100 %	
			Bromofluorobenzene	99 %	
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

**COMMENTS:**

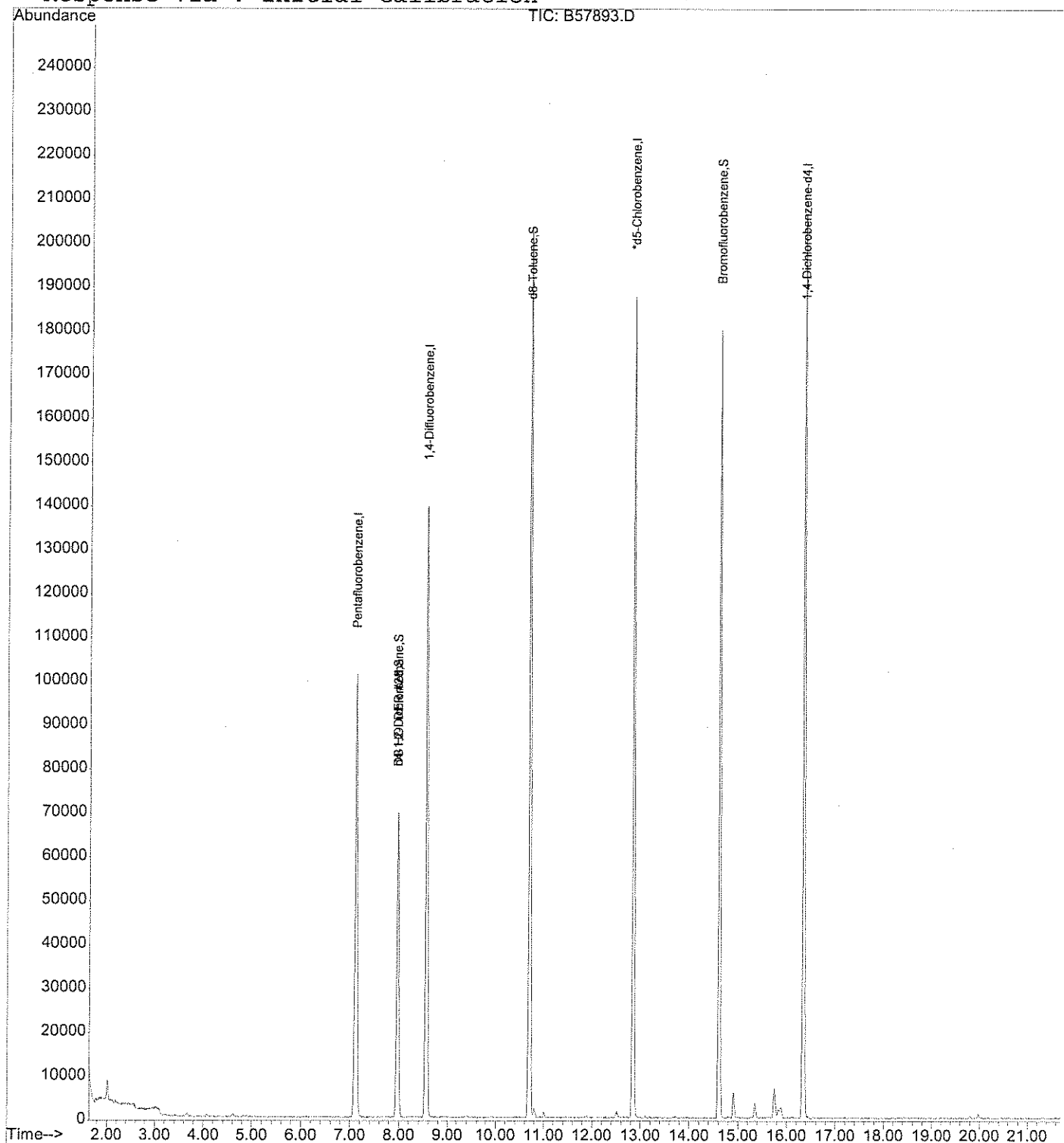
# Quantitation Report

Data File : C:\HPCHEM\1\DATA\102108-B\B57893.D  
 Acq On : 21 Oct 2008 2:12 pm  
 Sample : 62501-3  
 Misc : 5000  
 MS Integration Params: rteint.p  
 Quant Time: Oct 21 14:30 2008

Vial: 9  
 Operator:  
 Inst : Instrumen  
 Multiplr: 1.00

Quant Results File: V810168B.RES

Method : C:\HPCHEM\1\METHODS\V810168B.M (RTE Integrator)  
 Title : 8260 Purgable Organics  
 Last Update : Thu Oct 16 16:38:42 2008  
 Response via : Initial Calibration



Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

October 27, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**

Project Name: SME 734-08

Project Number:

Field Sample ID: Bldg 3

Lab Sample ID: 62501-4

Matrix: Solid

Percent Solid: 64

Dilution Factor: 228

Collection Date: 10/16/08

Lab Receipt Date: 10/20/08

Analysis Date: 10/24/08

**ANALYTICAL RESULTS VOLATILE ORGANICS**

COMPOUND	Quantitation Limit µg/kg	Result µg/kg	COMPOUND	Quantitation Limit µg/kg	Result µg/kg
Benzene	228	U	1,3-Dichloropropane	228	U
Bromobenzene	228	U	cis-1,3-Dichloropropene	228	U
Bromochloromethane	228	U	trans-1,3-Dichloropropene	228	U
Bromodichloromethane	171	U	2,2-Dichloropropane	228	U
Bromoform	171	U	1,1-Dichloropropene	228	U
Bromomethane	228	U	Ethylbenzene	228	U
n-butylbenzene	228	U	Hexachlorobutadiene	228	U
sec-butylbenzene	228	U	Isopropylbenzene	228	U
tert-butylbenzene	228	U	p-isopropyltoluene	228	U
Carbon Tetrachloride	228	U	Methylene Chloride	1140	U
Chlorobenzene	228	U	Methyl-tert-butyl ether (MTBE)	228	U
Chloroethane	228	U	Naphthalene	228	U
Chloroform	171	U	n-Propylbenzene	228	U
Chloromethane	228	U	Styrene	228	U
2-Chlorotoluene	228	U	1,1,1,2-Tetrachloroethane	228	U
4-Chlorotoluene	228	U	1,1,2,2-Tetrachloroethane	171	U
Dibromochloromethane	171	U	Tetrachloroethene	228	U
1,2-Dibromo-3-chloropropane	228	U	Toluene	228	U
1,2-Dibromoethane	171	U	1,2,3-Trichlorobenzene	228	U
Dibromomethane	228	U	1,2,4-Trichlorobenzene	228	U
1,2-Dichlorobenzene	228	U	1,1,1-Trichloroethane	228	U
1,3-Dichlorobenzene	228	U	1,1,2-Trichloroethane	171	U
1,4-Dichlorobenzene	228	U	Trichloroethene	228	U
Dichlorodifluoromethane	228	U	Trichlorofluoromethane	228	U
1,1-Dichloroethane	228	U	1,2,3-Trichloropropane	228	U
1,2-Dichloroethane	171	U	1,2,4-Trimethylbenzene	228	U
1,1-Dichloroethene	171	U	1,3,5-Trimethylbenzene	228	U
cis-1,2-Dichloroethene	228	U	Vinyl Chloride	228	U
trans-1,2-Dichloroethene	228	U	o-Xylene	228	U
1,2-Dichloropropane	171	U	m,p-Xylene	228	U
Acetone	2280	U	Diethyl ether	228	U
Carbon Disulfide	228	U	2-Hexanone	2280	U
Tetrahydrofuran	1140	U	Methyl isobutyl ketone	2280	U
Methyl ethyl ketone	2280	U	Di-isopropyl ether (DIPE)	228	U
t-Butyl alcohol (TBA)	4560	U	Ethyl t-butyl ether (ETBE)	228	U
t-Amyl methyl ether (TAME)	228	U			
<b>Surrogate Standard Recovery</b>					
d4-1,2-Dichloroethane	99 %	d8-Toluene	94 %	Bromofluorobenzene	96 %
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

**COMMENTS:** Results are expressed on a dry weight basis. Sample collection and analysis in accordance with SW-846 method 5035A.

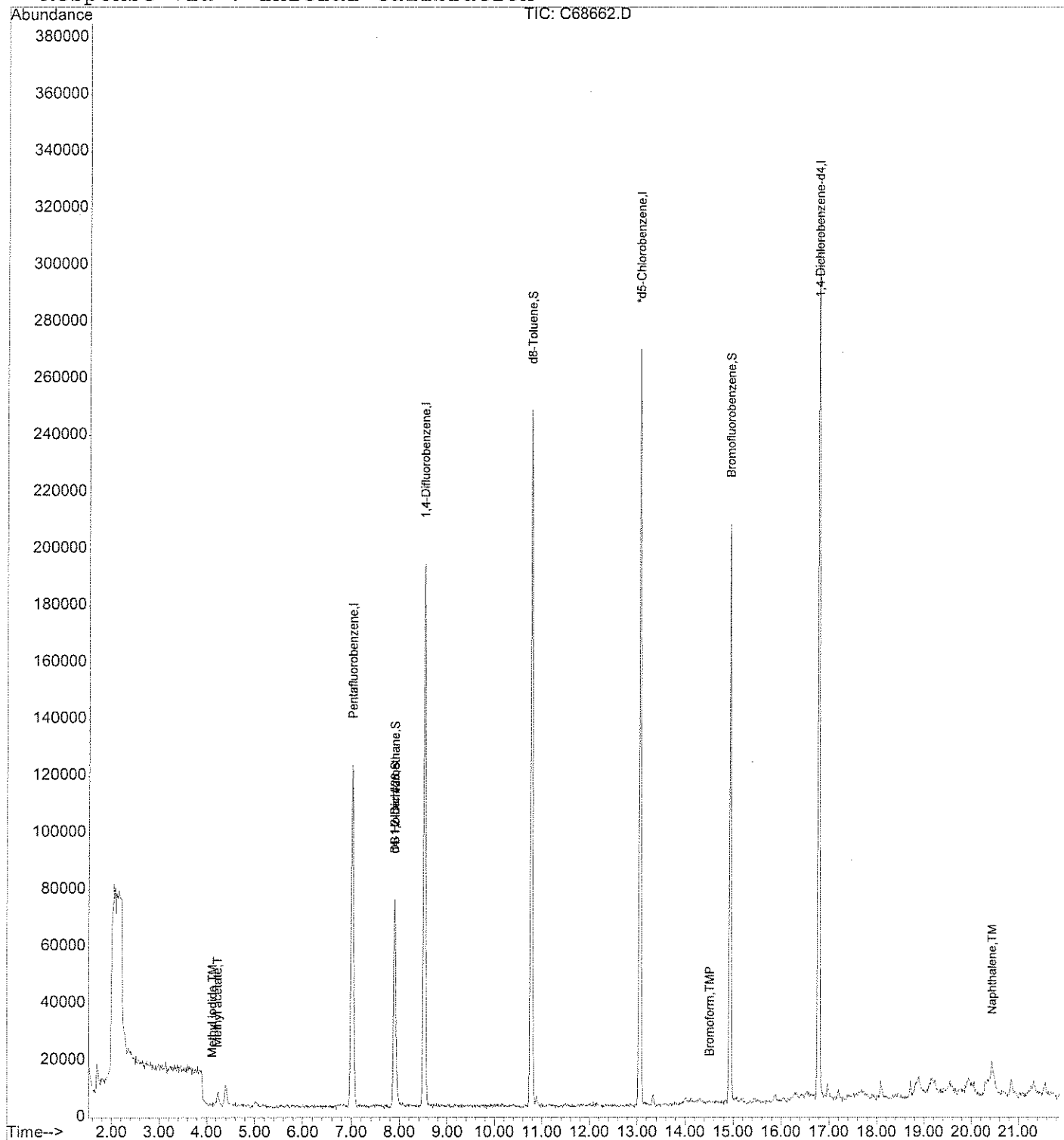
# Quantitation Report

Data File : D:\HPCHEM\1\DATA\102408C\C68662.D  
 Acq On : 24 Oct 2008 10:48 pm  
 Sample : 62501-4  
 Misc : 50,3.41,SOIL  
 MS Integration Params: rteint.p  
 Quant Time: Oct 24 23:08 2008

Vial: 8  
 Operator:  
 Inst : Instr\_C  
 Multiplr: 1.00

Quant Results File: V809128C.RES

Method : D:\HPCHEM\1\METHODS\V809128C.M (RTE Integrator)  
 Title : 8260 Purgable Organics  
 Last Update : Thu Oct 23 10:17:48 2008  
 Response via : Initial Calibration



Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

October 27, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** SME 734-08

**Project Number:**

**Field Sample ID:** Trip Blank

**Lab Sample ID:** 62501-6

**Matrix:** Solid

**Percent Solid:** 100

**Dilution Factor:** 100

**Collection Date:** 10/16/08

**Lab Receipt Date:** 10/20/08

**Analysis Date:** 10/24/08

**ANALYTICAL RESULTS VOLATILE ORGANICS**

COMPOUND	Quantitation Limit µg/kg	Result µg/kg	COMPOUND	Quantitation Limit µg/kg	Result µg/kg
Benzene	100	U	1,3-Dichloropropane	100	U
Bromobenzene	100	U	cis-1,3-Dichloropropene	100	U
Bromochloromethane	100	U	trans-1,3-Dichloropropene	100	U
Bromodichloromethane	75	U	2,2-Dichloropropane	100	U
Bromoform	75	U	1,1-Dichloropropene	100	U
Bromomethane	100	U	Ethylbenzene	100	U
n-butylbenzene	100	U	Hexachlorobutadiene	100	U
sec-butylbenzene	100	U	Isopropylbenzene	100	U
tert-butylbenzene	100	U	p-isopropyltoluene	100	U
Carbon Tetrachloride	100	U	Methylene Chloride	500	U
Chlorobenzene	100	U	Methyl-tert-butyl ether (MTBE)	100	U
Chloroethane	100	U	Naphthalene	100	U
Chloroform	75	U	n-Propylbenzene	100	U
Chloromethane	100	U	Styrene	100	U
2-Chlorotoluene	100	U	1,1,1,2-Tetrachloroethane	100	U
4-Chlorotoluene	100	U	1,1,2,2-Tetrachloroethane	75	U
Dibromochloromethane	75	U	Tetrachloroethene	100	U
1,2-Dibromo-3-chloropropane	100	U	Toluene	100	U
1,2-Dibromoethane	75	U	1,2,3-Trichlorobenzene	100	U
Dibromomethane	100	U	1,2,4-Trichlorobenzene	100	U
1,2-Dichlorobenzene	100	U	1,1,1-Trichloroethane	100	U
1,3-Dichlorobenzene	100	U	1,1,2-Trichloroethane	75	U
1,4-Dichlorobenzene	100	U	Trichloroethene	100	U
Dichlorodifluoromethane	100	U	Trichlorofluoromethane	100	U
1,1-Dichloroethane	100	U	1,2,3-Trichloropropane	100	U
1,2-Dichloroethane	75	U	1,2,4-Trimethylbenzene	100	U
1,1-Dichloroethene	75	U	1,3,5-Trimethylbenzene	100	U
cis-1,2-Dichloroethene	100	U	Vinyl Chloride	100	U
trans-1,2-Dichloroethene	100	U	o-Xylene	100	U
1,2-Dichloropropane	75	U	m,p-Xylene	100	U
Acetone	1000	U	Diethyl ether	100	U
Carbon Disulfide	100	U	2-Hexanone	1000	U
Tetrahydrofuran	500	U	Methyl isobutyl ketone	1000	U
Methyl ethyl ketone	1000	U	Di-isopropyl ether (DIPE)	100	U
t-Butyl alcohol (TBA)	2000	U	Ethyl t-butyl ether (ETBE)	100	U
t-Amyl methyl ether (TAME)	100	U			
<b>Surrogate Standard Recovery</b>					
d4-1,2-Dichloroethane	102 %		d8-Toluene	97 %	
			Bromofluorobenzene	100 %	
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

**COMMENTS:** Results are expressed on a dry weight basis. Sample collection and analysis in accordance with SW-846 method 5035A.

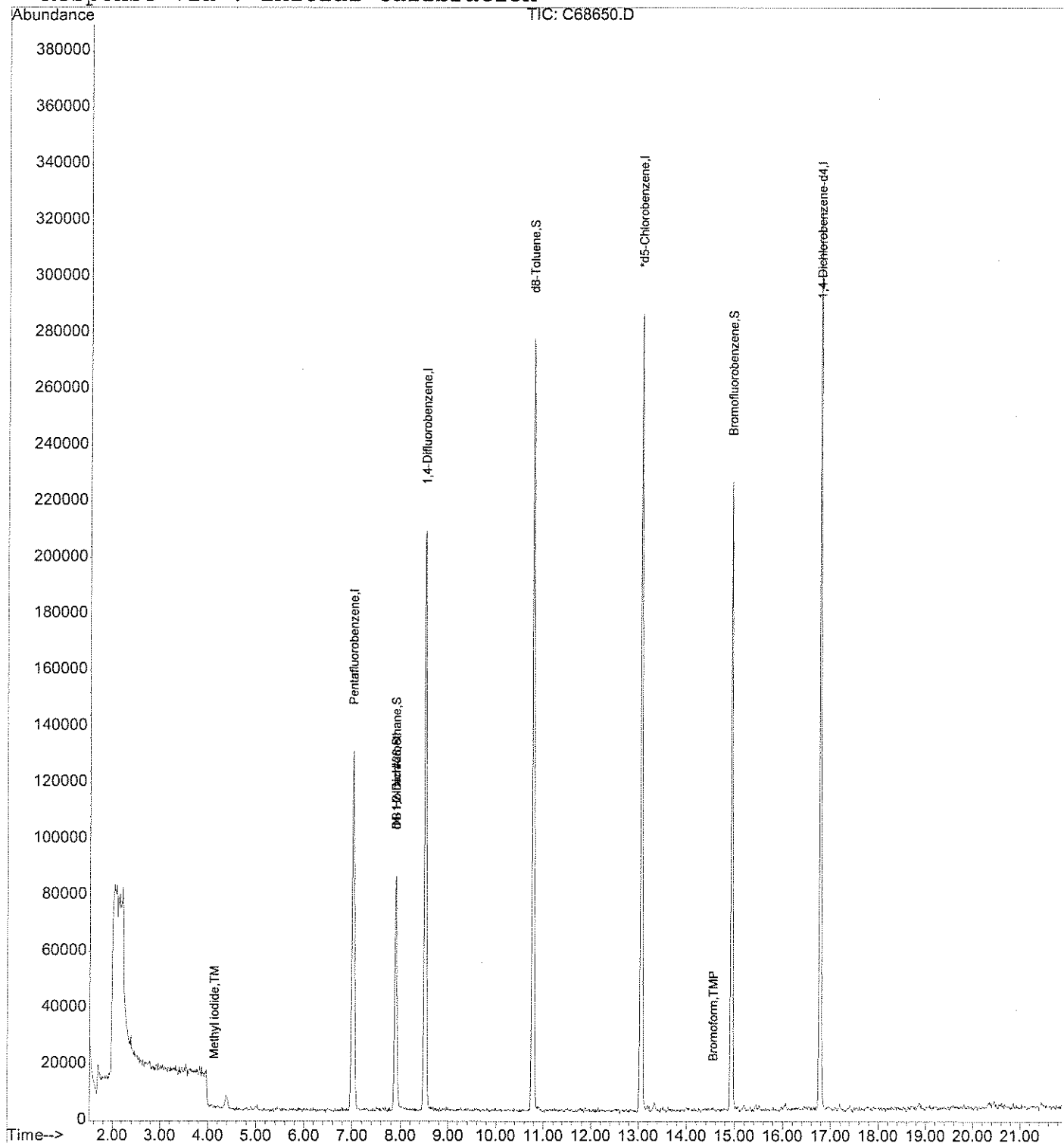
# Quantitation Report

Data File : D:\HPCHEM\1\DATA\102408C\C68650.D  
 Acq On : 24 Oct 2008 5:01 pm  
 Sample : 62501-6  
 Misc : 50,5.00,SOIL  
 MS Integration Params: rteint.p  
 Quant Time: Oct 24 17:11 2008

Vial: 12  
 Operator:  
 Inst : Instr\_C  
 Multiplr: 1.00

Quant Results File: V809128C.RES

Method : D:\HPCHEM\1\METHODS\V809128C.M (RTE Integrator)  
 Title : 8260 Purgable Organics  
 Last Update : Thu Oct 23 10:17:48 2008  
 Response via : Initial Calibration



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Yarmouth, ME 04096-1107

October 27, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** SME 734-08  
**Project Number:**  
**Field Sample ID:** Trip Blank

**Lab Sample ID:** 62501-7  
**Matrix:** Aqueous  
**Percent Solid:** N/A  
**Dilution Factor:** 1  
**Collection Date:** 10/16/08  
**Lab Receipt Date:** 10/20/08  
**Analysis Date:** 10/21/08

**ANALYTICAL RESULTS VOLATILE ORGANICS**

COMPOUND	Quantitation Limit µg/L	Result µg/L	COMPOUND	Quantitation Limit µg/L	Result µg/L
Benzene	1	U	1,3-Dichloropropane	1	U
Bromobenzene	1	U	cis-1,3-Dichloropropene	1	U
Bromochloromethane	1	U	trans-1,3-Dichloropropene	1	U
Bromodichloromethane	1	U	2,2-Dichloropropane	1	U
Bromoform	1	U	1,1-Dichloropropene	1	U
Bromomethane	1	U	Ethylbenzene	1	U
n-butylbenzene	1	U	Hexachlorobutadiene	1	U
sec-butylbenzene	1	U	Isopropylbenzene	1	U
tert-butylbenzene	1	U	p-isopropyltoluene	1	U
Carbon Tetrachloride	1	U	Methylene Chloride	5	U
Chlorobenzene	1	U	Methyl-tert-butyl ether (MTBE)	1	U
Chloroethane	1	U	Naphthalene	1	U
Chloroform	1	U	n-Propylbenzene	1	U
Chloromethane	1	U	Styrene	1	U
2-Chlorotoluene	1	U	1,1,1,2-Tetrachloroethane	1	U
4-Chlorotoluene	1	U	1,1,2,2-Tetrachloroethane	1	U
Dibromochloromethane	1	U	Tetrachloroethene	1	U
1,2-Dibromo-3-chloropropane	1	U	Toluene	1	U
1,2-Dibromoethane	1	U	1,2,3-Trichlorobenzene	1	U
Dibromomethane	1	U	1,2,4-Trichlorobenzene	1	U
1,2-Dichlorobenzene	1	U	1,1,1-Trichloroethane	1	U
1,3-Dichlorobenzene	1	U	1,1,2-Trichloroethane	1	U
1,4-Dichlorobenzene	1	U	Trichloroethene	1	U
Dichlorodifluoromethane	1	U	Trichlorofluoromethane	1	U
1,1-Dichloroethane	1	U	1,2,3-Trichloropropane	1	U
1,2-Dichloroethane	1	U	1,2,4-Trimethylbenzene	1	U
1,1-Dichloroethene	1	U	1,3,5-Trimethylbenzene	1	U
cis-1,2-Dichloroethene	1	U	Vinyl Chloride	1	U
trans-1,2-Dichloroethene	1	U	o-Xylene	1	U
1,2-Dichloropropane	1	U	m,p-Xylene	1	U
Acetone	10	U	Diethyl ether	1	U
Carbon Disulfide	1	U	2-Hexanone	10	U
Tetrahydrofuran	2.5	U	Methyl isobutyl ketone	10	U
Methyl ethyl ketone	10	U	Di-isopropyl ether (DIPE)	1	U
t-Butyl alcohol (TBA)	20	U	Ethyl t-butyl ether (ETBE)	1	U
t-Amyl methyl ether (TAME)	1	U			
<b>Surrogate Standard Recovery</b>					
d4-1,2-Dichloroethane	97 %		d8-Toluene	100 %	
			Bromofluorobenzene	98 %	
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

**COMMENTS:**

*[Signature]*



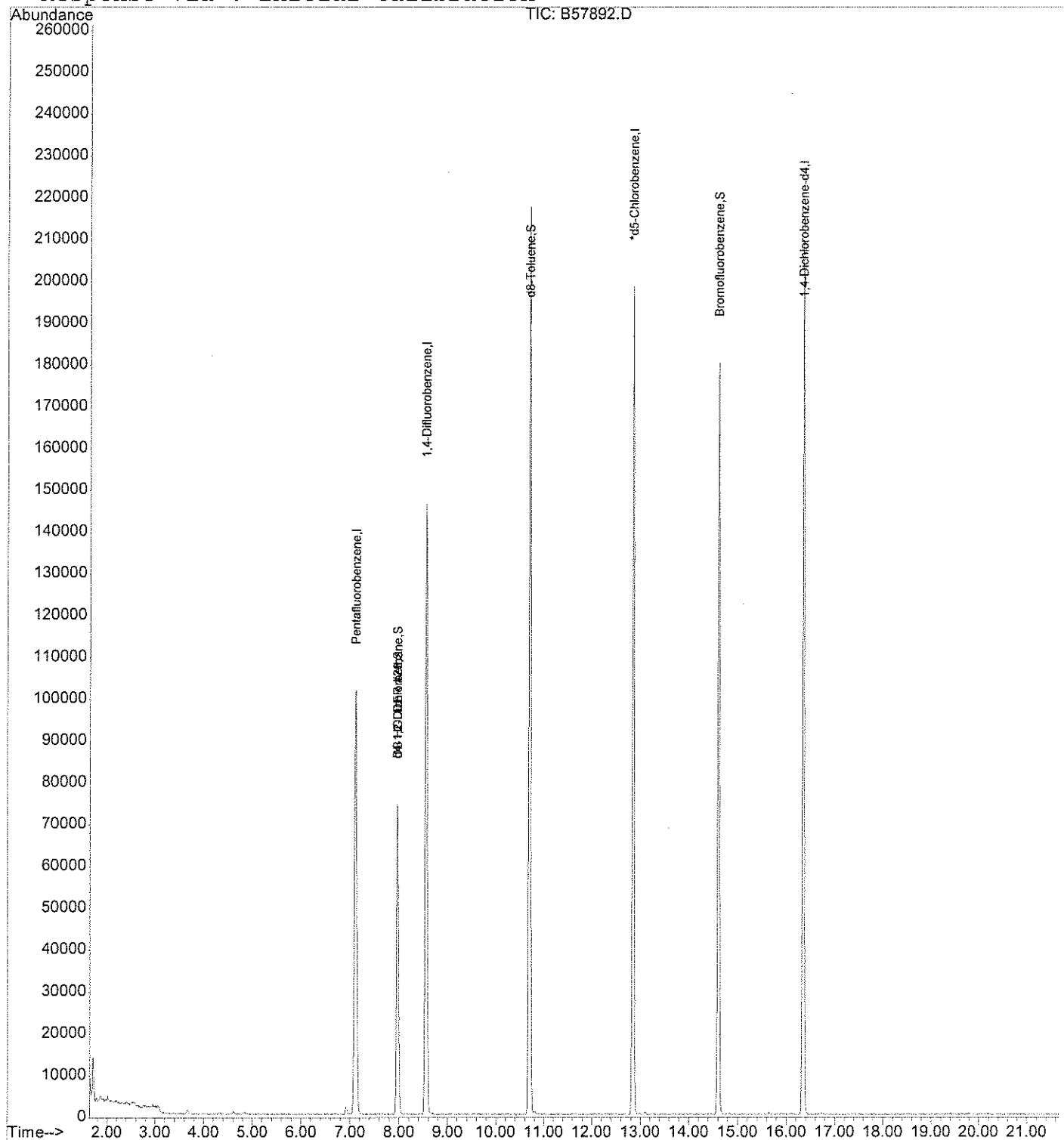
# Quantitation Report

Data File : C:\HPCHEM\1\DATA\102108-B\B57892.D  
 Acq On : 21 Oct 2008 1:42 pm  
 Sample : 62501-7  
 Misc : 5000  
 MS Integration Params: rteint.p  
 Quant Time: Oct 21 14:02 2008

Vial: 8  
 Operator:  
 Inst : Instrumen  
 Multiplr: 1.00

Quant Results File: V810168B.RES

Method : C:\HPCHEM\1\METHODS\V810168B.M (RTE Integrator)  
 Title : 8260 Purgable Organics  
 Last Update : Thu Oct 16 16:38:42 2008  
 Response via : Initial Calibration



## VOLATILE QC FORMS

VOLATILE ORGANIC AQUEOUS  
LABORATORY CONTROL SAMPLE  
LABORATORY CONTROL SAMPLE DUPLICATE  
PERCENT RECOVERY

Instrument ID: B

GC Column: RTX-502.2

Column ID: 0.25 mm

Heated purge (Y/N): N

SDG: 62501

Non-spiked sample: B810218B

Spike: L810218B

Spike duplicate: L810218B2

COMPOUND	SPIKE ADDED	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
Dichlorodifluoromethane	20	80	120	15	0.0	19	95		17	85		11	
Chloromethane	20	80	120	15	0.0	18	90		16	81		11	
Vinyl Chloride	20	80	120	15	0.0	17	87		15	77	*	11	
Bromomethane	20	80	120	15	0.0	20	100		19	93		7	
Chloroethane	20	80	120	15	0.0	18	92		16	82		11	
t-Butyl alcohol (TBA)	100	70	130	15	0.0	92	92		93	93		1	
Trichlorofluoromethane	20	80	120	15	0.0	18	88		16	80		10	
Diethyl ether	20	80	120	15	0.0	19	95		19	95		0	
1,1,2-Trichlorotrifluoroethane	20	80	120	15	0.0	19	94		17	85		10	
Acetone	100	70	130	15	0.0	113	113		115	115		1	
1,1-Dichloroethene	20	80	120	15	0.0	19	97		17	87		11	
Methyl iodide	20	70	130	15	0.0	16	81		16	78		3	
Di-isopropyl ether (DIPE)	20	80	120	15	0.0	20	101		20	99		2	
Methylene Chloride	20	80	120	15	0.0	19	96		19	96		1	
Carbon Disulfide	20	70	130	15	0.0	19	94		17	85		10	
Acrylonitrile	20	70	130	15	0.0	20	101		21	103		2	
Methyl-tert-butyl ether (MTBE)	40	80	120	15	0.0	38	95		38	96		1	
trans-1,2-Dichloroethene	20	80	120	15	0.0	20	100		19	94		6	
1,1-Dichloroethane	20	80	120	15	0.0	20	99		18	92		7	
Vinyl acetate	20	70	130	15	0.0	12	61	*	12	58	*	4	
Methyl ethyl ketone	100	70	130	15	0.0	118	118		121	121		2	
Ethyl t-butyl ether (ETBE)	20	80	120	15	0.0	20	98		19	96		2	
2,2-Dichloropropane	20	80	120	15	0.0	19	96		18	88		9	
cis-1,2-Dichloroethene	20	80	120	15	0.0	20	101		19	95		7	
t-Amyl methyl ether (TAME)	20	80	120	15	0.0	20	100		19	96		3	
Chloroform	20	80	120	15	0.0	20	100		19	93		7	
Bromochloromethane	20	80	120	15	0.0	20	100		19	97		3	
Tetrahydrofuran	20	70	130	15	0.0	20	98		19	97		1	
1,1,1-Trichloroethane	20	80	120	15	0.0	19	96		18	89		8	
1,1-Dichloropropene	20	80	120	15	0.0	20	98		18	90		9	
Carbon Tetrachloride	20	80	120	15	0.0	19	96		17	87		9	
1,2-Dichloroethane	20	80	120	15	0.0	19	95		19	94		2	
Benzene	20	80	120	15	0.0	20	101		19	94		8	
Trichloroethene	20	80	120	15	0.0	20	99		19	93		6	
1,2-Dichloropropane	20	80	120	15	0.0	21	103		19	97		6	
Methylmethacrylate	20	70	130	15	0.0	19	94		19	95		1	
Bromodichloromethane	20	80	120	15	0.0	20	98		19	94		4	
Dibromomethane	20	80	120	15	0.0	19	93		20	98		4	
1,4-Dioxane	500	70	130	15	0.0	457	91		451	90		1	
2-Hexanone	100	70	130	15	0.0	120	120		121	121		1	
Methyl isobutyl ketone	100	70	130	15	0.0	117	117		120	120		3	
cis-1,3-Dichloropropene	20	80	120	15	0.0	20	99		20	98		2	
Toluene	20	80	120	15	0.0	20	98		18	92		6	
trans-1,3-Dichloropropene	20	80	120	15	0.0	18	91		18	88		4	
1,1,2-Trichloroethane	20	80	120	15	0.0	20	101		20	101		1	
1,3-Dichloropropane	20	80	120	15	0.0	20	99		20	99		0	
Tetrachloroethene	20	80	120	15	0.0	21	105		19	94		11	
Dibromochloromethane	20	80	120	15	0.0	19	97		19	96		2	

VOLATILE ORGANIC AQUEOUS  
LABORATORY CONTROL SAMPLE  
LABORATORY CONTROL SAMPLE DUPLICATE  
PERCENT RECOVERY

Instrument ID: B  
GC Column: RTX-502.2  
Column ID: 0.25 mm  
Heated purge (Y/N): N

SDG: 62501  
Non-spiked sample: B810218B  
Spike: L810218B  
Spike duplicate: L810218B2

COMPOUND	SPIKE ADDED	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
1,2-Dibromoethane	20	80	120	15	0.0	20	98		19	97		2	
Chlorobenzene	20	80	120	15	0.0	19	95		18	90		5	
1,1,1,2-Tetrachloroethane	20	80	120	15	0.0	20	100		19	94		6	
Ethylbenzene	20	80	120	15	0.0	19	93		18	89		5	
m,p-Xylene	40	80	120	15	0.0	38	95		36	89		6	
o-Xylene	20	80	120	15	0.0	19	95		18	92		4	
Styrene	20	80	120	15	0.0	19	97		19	94		3	
Bromoforn	20	80	120	15	0.0	19	95		19	96		1	
Isopropylbenzene	20	80	120	15	0.0	17	85		16	79	*	7	
1,1,2,2-Tetrachloroethane	20	80	120	15	0.0	19	96		19	96		0	
1,2,3-Trichloropropane	20	80	120	15	0.0	18	92		18	92		0	
trans-1,4-Dichloro-2-butene	20	80	120	15	0.0	18	92		18	90		2	
n-Propylbenzene	20	80	120	15	0.0	18	91		17	85		7	
Bromobenzene	20	80	120	15	0.0	19	96		19	93		3	
1,3,5-Trimethylbenzene	20	80	120	15	0.0	18	91		18	88		3	
2-Chlorotoluene	20	80	120	15	0.0	18	90		18	89		1	
4-Chlorotoluene	20	80	120	15	0.0	19	93		18	89		4	
tert-butylbenzene	20	80	120	15	0.0	17	87		17	83		5	
1,2,4-Trimethylbenzene	20	80	120	15	0.0	19	93		18	90		4	
sec-butylbenzene	20	80	120	15	0.0	18	92		17	87		7	
p-isopropyltoluene	20	80	120	15	0.0	18	89		16	82		8	
1,3-Dichlorobenzene	20	80	120	15	0.0	18	92		18	89		4	
1,4-Dichlorobenzene	20	80	120	15	0.0	19	93		17	86		7	
n-butylbenzene	20	80	120	15	0.0	18	90		17	84		7	
1,2-Dichlorobenzene	20	80	120	15	0.0	19	94		18	90		5	
1,2-Dibromo-3-chloropropane	20	80	120	15	0.0	18	92		18	91		2	
1,2,4-Trichlorobenzene	20	80	120	15	0.0	17	87		17	85		2	
Hexachlorobutadiene	20	80	120	15	0.0	19	93		17	83		10	
Naphthalene	20	80	120	15	0.0	18	91		19	94		4	
1,2,3-Trichlorobenzene	20	80	120	15	0.0	18	88		18	88		0	
1,3,5-Trichlorobenzene	20	80	120	15	0.0	18	89		17	84		5	

# Column to be used to flag recovery and RPD values outside of QC limits

\* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery

Comments: \_\_\_\_\_

VOLATILE ORGANIC AQUEOUS  
MATRIX SPIKE/DUPLICATE  
PERCENT RECOVERY

Instrument ID: B

GC Column: RTX-502.2

Column ID: 0.25 mm

Heated purge (Y/N): N

SDG: 62501

Non-spiked sample: 62501-3

Spike: 62501-3, MS

Spike duplicate: 62501-3, MSD

COMPOUND	SPIKE ADDED	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
Dichlorodifluoromethane	20	70	130	15	0.0	21	104		21	105		1	
Chloromethane	20	70	130	15	0.0	19	96		20	98		3	
Vinyl Chloride	20	70	130	15	0.0	20	98		19	96		2	
Bromomethane	20	70	130	15	0.0	21	106		21	107		1	
Chloroethane	20	70	130	15	0.0	20	99		20	101		2	
t-Butyl alcohol (TBA)	100	70	130	25	0.0	111	111		99	99		12	
Trichlorofluoromethane	20	70	130	15	0.0	19	97		19	96		1	
Diethyl ether	20	70	130	15	0.0	20	98		19	96		2	
1,1,2-Trichlorotrifluoroethane	20	70	130	15	0.0	21	105		21	104		1	
Acetone	100	70	130	25	0.0	124	124		117	117		5	
1,1-Dichloroethene	20	70	130	15	0.0	21	104		21	104		0	
Methyl iodide	20	70	130	25	0.0	17	86		19	94		9	
Di-isopropyl ether (DIPE)	20	70	130	15	0.0	22	108		21	106		2	
Methylene Chloride	20	70	130	15	0.0	20	102		20	101		1	
Carbon Disulfide	20	70	130	25	0.0	21	103		20	102		2	
Acrylonitrile	20	70	130	25	0.0	22	108		21	103		4	
Methyl-tert-butyl ether (MTBE)	40	70	130	15	0.0	41	102		40	101		1	
trans-1,2-Dichloroethene	20	70	130	15	0.0	22	108		22	109		1	
1,1-Dichloroethane	20	70	130	15	0.0	21	105		21	105		1	
Vinyl acetate	20	70	130	25	0.0	12	61	*	12	59	*	2	
Methyl ethyl ketone	100	70	130	25	0.0	130	130		123	123		6	
Ethyl t-butyl ether (ETBE)	20	70	130	15	0.0	20	102		21	103		1	
2,2-Dichloropropane	20	70	130	15	0.0	20	102		20	101		1	
cis-1,2-Dichloroethene	20	70	130	15	0.0	22	109		22	108		1	
t-Amyl methyl ether (TAME)	20	70	130	15	0.0	21	104		21	103		0	
Chloroform	20	70	130	15	0.0	22	109		22	108		1	
Bromochloromethane	20	70	130	15	0.0	22	109		21	106		3	
Tetrahydrofuran	20	70	130	25	0.0	20	101		20	102		1	
1,1,1-Trichloroethane	20	70	130	15	0.0	21	106		21	106		0	
1,1-Dichloropropene	20	70	130	15	0.0	21	107		22	108		1	
Carbon Tetrachloride	20	70	130	15	0.0	21	107		21	107		1	
1,2-Dichloroethane	20	70	130	15	0.0	21	103		20	102		1	
Benzene	20	70	130	15	0.0	22	109		22	109		0	
Trichloroethene	20	70	130	15	0.0	22	111		22	111		0	
1,2-Dichloropropane	20	70	130	15	0.0	22	108		22	110		2	
Methylmethacrylate	20	70	130	25	0.0	21	104		20	102		2	
Bromodichloromethane	20	70	130	15	0.0	22	109		22	110		1	
Dibromomethane	20	70	130	15	0.0	22	108		21	107		1	
1,4-Dioxane	500	70	130	30	0.0	531	106		508	102		4	
2-Hexanone	100	70	130	25	0.0	136	136	*	131	131	*	4	
Methyl isobutyl ketone	100	70	130	25	0.0	135	135	*	129	129		5	
cis-1,3-Dichloropropene	20	70	130	15	0.0	21	106		22	108		2	
Toluene	20	70	130	15	0.0	21	107		22	109		2	
trans-1,3-Dichloropropene	20	70	130	15	0.0	19	95		20	98		3	
1,1,2-Trichloroethane	20	70	130	15	0.0	22	108		22	109		0	
1,3-Dichloropropane	20	70	130	15	0.0	22	109		21	107		1	
Tetrachloroethene	20	70	130	15	0.0	24	119		24	118		1	
Dibromochloromethane	20	70	130	15	0.0	21	106		21	104		2	
1,2-Dibromoethane	20	70	130	15	0.0	21	105		21	104		1	

VOLATILE ORGANIC AQUEOUS  
MATRIX SPIKE/DUPLICATE  
PERCENT RECOVERY

Instrument ID: B  
GC Column: RTX-502.2  
Column ID: 0.25 mm  
Heated purge (Y/N): N

SDG: 62501  
Non-spiked sample: 62501-3  
Spike: 62501-3, MS  
Spike duplicate: 62501-3, MSD

COMPOUND	SPIKE ADDED	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
Chlorobenzene	20	70	130	15	0.0	20	99		20	102		3	
1,1,1,2-Tetrachloroethane	20	70	130	15	0.0	21	106		21	107		1	
Ethylbenzene	20	70	130	15	0.0	21	105		21	105		0	
m,p-Xylene	40	70	130	15	0.0	42	104		42	105		1	
o-Xylene	20	70	130	15	0.0	21	103		21	104		1	
Styrene	20	70	130	15	0.0	21	104		21	106		2	
Bromoform	20	70	130	15	0.0	20	102		20	100		2	
Isopropylbenzene	20	70	130	15	0.0	18	92		19	93		1	
1,1,2,2-Tetrachloroethane	20	70	130	15	0.0	21	103		20	100		3	
1,2,3-Trichloropropane	20	70	130	15	0.0	20	101		20	99		2	
trans-1,4-Dichloro-2-butene	20	70	130	15	0.0	19	95		19	96		1	
n-Propylbenzene	20	70	130	15	0.0	20	99		20	102		2	
Bromobenzene	20	70	130	15	0.0	21	104		21	105		1	
1,3,5-Trimethylbenzene	20	70	130	15	0.0	19	95		19	97		2	
2-Chlorotoluene	20	70	130	15	0.0	20	98		20	100		2	
4-Chlorotoluene	20	70	130	15	0.0	21	103		21	103		0	
tert-butylbenzene	20	70	130	15	0.0	20	100		20	100		1	
1,2,4-Trimethylbenzene	20	70	130	15	0.0	19	96		20	101		5	
sec-butylbenzene	20	70	130	15	0.0	20	99		20	100		1	
p-isopropyltoluene	20	70	130	15	0.0	18	90		18	92		2	
1,3-Dichlorobenzene	20	70	130	15	0.0	20	101		20	99		2	
1,4-Dichlorobenzene	20	70	130	15	0.0	19	97		20	98		1	
n-butylbenzene	20	70	130	15	0.0	18	89		19	94		5	
1,2-Dichlorobenzene	20	70	130	15	0.0	20	98		20	100		1	
1,2-Dibromo-3-chloropropane	20	70	130	15	0.0	20	101		20	98		3	
1,2,4-Trichlorobenzene	20	70	130	15	0.0	17	84		18	89		6	
Hexachlorobutadiene	20	70	130	15	0.0	19	94		19	95		2	
Naphthalene	20	70	130	15	0.0	18	89		19	95		7	
1,2,3-Trichlorobenzene	20	70	130	15	0.0	17	87		18	91		4	
1,3,5-Trichlorobenzene	20	70	130	15	0.0	17	86		18	90		5	

# Column to be used to flag recovery and RPD values outside of QC limits

\* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery

Comments: \_\_\_\_\_

VOLATILE ORGANIC SOIL  
LABORATORY CONTROL/LABORATORY CONTROL DUPLICATE  
PERCENT RECOVERY

Instrument ID: C  
GC Column: RTX-502.2  
Column ID: 0.25 mm  
Heated purge (Y/N): N

SDG: 62501  
Non-spiked sample: MB10248C  
Spike: LS10248C  
Spike duplicate: LS10248C2

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
Dichlorodifluoromethane	2000	2000	49	82	25	0	1041	52		1042	52		0	
Chloromethane	2000	2000	75	125	25	0	1915	96		2053	103		7	
Vinyl Chloride	2000	2000	75	125	25	0	1491	75		1462	73	*	2	
Bromomethane	2000	2000	75	125	25	0	2043	102		2132	107		4	
Chloroethane	2000	2000	75	125	25	0	1844	92		1939	97		5	
t-Butyl alcohol (TBA)	10000	10000	60	140	25	0	11169	112		13211	132		17	
Trichlorofluoromethane	2000	2000	75	125	25	0	1849	92		1842	92		0	
Diethyl ether	2000	2000	75	125	25	0	1990	100		2107	105		6	
1,1,2-Trichlorotrifluoroethane	2000	2000	75	125	25	0	2002	100		1786	89		11	
Acetone	5000	5000	75	125	25	0	6542	131	*	6000	120		9	
1,1-Dichloroethene	2000	2000	75	125	25	0	2309	115		2352	118		2	
Methyl iodide	2000	2000	75	125	25	0	2029	101		1867	93		8	
Di-isopropyl ether (DIPE)	2000	2000	75	125	25	0	2161	108		2161	108		0	
Methylene Chloride	2000	2000	75	125	25	0	2473	124		2080	104		17	
Carbon Disulfide	2000	2000	75	125	25	0	2131	107		1959	98		8	
Acrylonitrile	2000	2000	75	125	25	0	1858	93		2376	119		24	
Methyl-tert-butyl ether (MTBE)	2000	2000	75	125	25	0	2481	124		2264	113		9	
trans-1,2-Dichloroethene	2000	2000	75	125	25	0	1972	99		2194	110		11	
1,1-Dichloroethane	2000	2000	75	125	25	0	2198	110	⚡	2271	114		3	
Methyl ethyl ketone	5000	5000	60	140	25	0	6081	122		6789	136		11	
Ethyl t-butyl ether (ETBE)	2000	2000	75	125	25	0	2374	119		2354	118		1	
2,2-Dichloropropane	2000	2000	75	125	25	0	2330	117		2341	117		0	
cis-1,2-Dichloroethene	2000	2000	75	125	25	0	2238	112		2273	114		2	
t-Amyl methyl ether (TAME)	2000	2000	75	125	25	0	2332	117		2328	116		0	
Chloroform	2000	2000	75	125	25	0	2280	114		2370	119		4	
Bromochloromethane	2000	2000	75	125	25	0	2154	108		2204	110		2	
Tetrahydrofuran	2000	2000	60	140	25	0	2197	110		2435	122		10	
1,1,1-Trichloroethane	2000	2000	75	125	25	0	2166	108		2180	109		1	
1,1-Dichloropropene	2000	2000	75	125	25	0	2193	110		2166	108		1	
Carbon Tetrachloride	2000	2000	75	125	25	0	2257	113		2204	110		2	
1,2-Dichloroethane	2000	2000	75	125	25	0	2187	109		2224	111		2	
Benzene	2000	2000	75	125	25	0	2214	111		2198	110		1	
Trichloroethene	2000	2000	75	125	25	0	2033	102		2065	103		2	
1,2-Dichloropropane	2000	2000	75	125	25	0	2148	107		2173	109		1	
Methylmethacrylate	2000	2000	75	125	25	0	2094	105		2290	115		9	
Bromodichloromethane	2000	2000	75	125	25	0	2174	109		2263	113		4	
Dibromomethane	2000	2000	75	125	25	0	2087	104		2219	111		6	
2-Hexanone	5000	5000	75	125	25	0	5770	115		6311	126	*	9	
Methyl isobutyl ketone	5000	5000	75	125	25	0	5604	112		6225	125		11	
cis-1,3-Dichloropropene	2000	2000	75	125	25	0	2205	110		2225	111		1	
Toluene	2000	2000	75	125	25	0	2166	108		2210	110		2	
trans-1,3-Dichloropropene	2000	2000	75	125	25	0	2324	116		2266	113		3	
1,1,2-Trichloroethane	2000	2000	75	125	25	0	2305	115		2383	119		3	
1,3-Dichloropropane	2000	2000	75	125	25	0	2220	111		2299	115		4	
Tetrachloroethene	2000	2000	75	125	25	0	2079	104		2150	108		3	
Dibromochloromethane	2000	2000	75	125	25	0	2168	108		2249	112		4	
1,2-Dibromoethane	2000	2000	75	125	25	0	2207	110		2286	114		4	
Chlorobenzene	2000	2000	75	125	25	0	2310	115		2251	113		3	
1,1,1,2-Tetrachloroethane	2000	2000	75	125	25	0	2066	103		2051	103		1	
Ethylbenzene	2000	2000	75	125	25	0	2240	112		2224	111		1	

VOLATILE ORGANIC SOIL  
LABORATORY CONTROL/LABORATORY CONTROL DUPLICATE  
PERCENT RECOVERY

Instrument ID: C  
GC Column: RTX-502.2  
Column ID: 0.25 mm  
Heated purge (Y/N): N

SDG: 62501  
Non-spiked sample: MB10248C  
Spike: LS10248C  
Spike duplicate: LS10248C2

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
m,p-Xylene	4000	4000	75	125	25	0	4572	114		4559	114		0	
o-Xylene	2000	2000	75	125	25	0	2217	111		2230	112		1	
Styrene	2000	2000	75	125	25	0	2278	114		2266	113		1	
Bromoform	2000	2000	75	125	25	0	2119	106		2151	108		2	
Isopropylbenzene	2000	2000	75	125	25	0	2239	112		2241	112		0	
1,1,2,2-Tetrachloroethane	2000	2000	75	125	25	0	2441	122		2545	127	*	4	
1,2,3-Trichloropropane	2000	2000	75	125	25	0	2226	111		2323	116		4	
trans-1,4-Dichloro-2-butene	2000	2000	75	125	25	0	2201	110		2167	108		2	
n-Propylbenzene	2000	2000	75	125	25	0	2268	113		2236	112		1	
Bromobenzene	2000	2000	75	125	25	0	2300	115		2298	115		0	
1,3,5-Trimethylbenzene	2000	2000	75	125	25	0	2272	114		2272	114		0	
2-Chlorotoluene	2000	2000	75	125	25	0	2300	115		2281	114		1	
4-Chlorotoluene	2000	2000	75	125	25	0	2273	114		2302	115		1	
tert-butylbenzene	2000	2000	75	125	25	0	2246	112		2221	111		1	
1,2,4-Trimethylbenzene	2000	2000	75	125	25	0	2309	115		2306	115		0	
sec-butylbenzene	2000	2000	75	125	25	0	2270	113		2284	114		1	
p-isopropyltoluene	2000	2000	75	125	25	0	2315	116		2312	116		0	
1,3-Dichlorobenzene	2000	2000	75	125	25	0	2391	120		2355	118		2	
1,4-Dichlorobenzene	2000	2000	75	125	25	0	2300	115		2287	114		1	
n-butylbenzene	2000	2000	75	125	25	0	2220	111		2233	112		1	
1,2-Dichlorobenzene	2000	2000	75	125	25	0	2256	113		2288	114		1	
1,2-Dibromo-3-chloropropane	2000	2000	75	125	25	0	2030	102		2218	111		9	
1,2,4-Trichlorobenzene	2000	2000	75	125	25	0	2283	114		2345	117		3	
Hexachlorobutadiene	2000	2000	75	125	25	0	2164	108		2169	108		0	
Naphthalene	2000	2000	75	125	25	0	2249	112		2377	119		6	
1,2,3-Trichlorobenzene	2000	2000	75	125	25	0	2441	122		2416	121		1	

# Column to be used to flag recovery and RPD values outside of QC limits  
\* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: \_\_\_\_\_



VOLATILE ORGANIC AQUEOUS  
LABORATORY CONTROL SAMPLE  
LABORATORY CONTROL SAMPLE DUPLICATE  
PERCENT RECOVERY

Instrument ID: C  
GC Column: RTX-502.2  
Column ID: 0.25 mm  
Heated purge (Y/N): N

SDG: 62501  
Non-spiked sample: B810278C  
Spike: L810278C  
Spike duplicate: L810278C2

COMPOUND	SPIKE ADDED	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	RPD
Dichlorodifluoromethane	20	80	120	15	0.0	20	99	19	97	2
Chloromethane	20	80	120	15	0.0	19	96	19	94	2
Vinyl Chloride	20	80	120	15	0.0	17	84	17	84	0
Bromomethane	20	80	120	15	0.0	23	113	22	110	3
Chloroethane	20	80	120	15	0.0	21	107	20	100	6
t-Butyl alcohol (TBA)	100	70	130	15	0.0	90	90	104	104	15
Trichlorofluoromethane	20	80	120	15	0.0	18	92	18	88	5
Diethyl ether	20	80	120	15	0.0	18	89	18	91	3
1,1,2-Trichlorotrifluoroethane	20	80	120	15	0.0	20	99	19	97	2
Acetone	100	70	130	15	0.0	111	111	121	121	9
1,1-Dichloroethene	20	80	120	15	0.0	21	107	21	107	0
Methyl iodide	20	70	130	15	0.0	19	96	18	91	5
Di-isopropyl ether (DIPE)	20	80	120	15	0.0	20	98	20	100	2
Methylene Chloride	20	80	120	15	0.0	22	110	19	94	16 *
Carbon Disulfide	20	70	130	15	0.0	19	97	18	90	7
Acrylonitrile	20	70	130	15	0.0	17	83	21	105	24 *
Methyl-tert-butyl ether (MTBE)	40	80	120	15	0.0	41	104	41	103	1
trans-1,2-Dichloroethene	20	80	120	15	0.0	18	92	19	95	3
1,1-Dichloroethane	20	80	120	15	0.0	19	93	19	94	1
Vinyl acetate	20	70	130	15	0.0	14	69 *	13	67 *	3
Methyl ethyl ketone	100	70	130	15	0.0	118	118	136	136 *	15
Ethyl t-butyl ether (ETBE)	20	80	120	15	0.0	21	104	21	106	2
2,2-Dichloropropane	20	80	120	15	0.0	20	101	19	97	4
cis-1,2-Dichloroethene	20	80	120	15	0.0	19	97	20	101	4
t-Amyl methyl ether (TAME)	20	80	120	15	0.0	20	101	21	106	4
Chloroform	20	80	120	15	0.0	19	96	20	100	4
Bromochloromethane	20	80	120	15	0.0	19	93	19	95	1
Tetrahydrofuran	20	70	130	15	0.0	18	90	19	95	6
1,1,1-Trichloroethane	20	80	120	15	0.0	19	96	19	95	1
1,1-Dichloropropene	20	80	120	15	0.0	19	96	19	97	1
Carbon Tetrachloride	20	80	120	15	0.0	20	100	20	101	0
1,2-Dichloroethane	20	80	120	15	0.0	18	89	18	91	2
Benzene	20	80	120	15	0.0	19	96	19	97	1
Trichloroethene	20	80	120	15	0.0	18	92	19	93	1
1,2-Dichloropropane	20	80	120	15	0.0	19	94	19	95	2
Methylmethacrylate	20	70	130	15	0.0	18	88	20	100	13
Bromodichloromethane	20	80	120	15	0.0	19	97	19	97	0
Dibromomethane	20	80	120	15	0.0	18	91	18	92	1
1,4-Dioxane	500	70	130	15	0.0	423	85	499	100	16 *
2-Hexanone	100	70	130	15	0.0	113	113	129	129	14
Methyl isobutyl ketone	100	70	130	15	0.0	115	115	128	128	11
cis-1,3-Dichloropropene	20	80	120	15	0.0	19	97	19	96	1
Toluene	20	80	120	15	0.0	19	96	19	97	1
trans-1,3-Dichloropropene	20	80	120	15	0.0	18	89	18	88	1
1,1,2-Trichloroethane	20	80	120	15	0.0	20	98	21	103	4
1,3-Dichloropropane	20	80	120	15	0.0	19	97	20	98	1
Tetrachloroethene	20	80	120	15	0.0	20	100	20	102	1
Dibromochloromethane	20	80	120	15	0.0	19	94	19	95	1
1,2-Dibromoethane	20	80	120	15	0.0	19	94	20	98	4

VOLATILE ORGANIC AQUEOUS  
LABORATORY CONTROL SAMPLE  
LABORATORY CONTROL SAMPLE DUPLICATE  
PERCENT RECOVERY

Instrument ID: C  
GC Column: RTX-502.2  
Column ID: 0.25 mm  
Heated purge (Y/N): N

SDG: 62501  
Non-spiked sample: B810278C  
Spike: L810278C  
Spike duplicate: L810278C2

COMPOUND	SPIKE ADDED	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
Chlorobenzene	20	80	120	15	0.0	19	97		20	100		4	
1,1,1,2-Tetrachloroethane	20	80	120	15	0.0	19	93		19	93		0	
Ethylbenzene	20	80	120	15	0.0	20	100		20	101		1	
m,p-Xylene	40	80	120	15	0.0	40	101		41	103		2	
o-Xylene	20	80	120	15	0.0	19	97		20	98		1	
Styrene	20	80	120	15	0.0	20	99		20	101		2	
Bromoforn	20	80	120	15	0.0	18	91		19	95		4	
Isopropylbenzene	20	80	120	15	0.0	17	86		18	88		3	
1,1,2,2-Tetrachloroethane	20	80	120	15	0.0	20	98		21	106		8	
1,2,3-Trichloropropane	20	80	120	15	0.0	18	92		21	104		12	
trans-1,4-Dichloro-2-butene	20	80	120	15	0.0	18	89		18	92		3	
n-Propylbenzene	20	80	120	15	0.0	19	97		19	97		0	
Bromobenzene	20	80	120	15	0.0	20	99		21	103		3	
1,3,5-Trimethylbenzene	20	80	120	15	0.0	20	99		20	99		0	
2-Chlorotoluene	20	80	120	15	0.0	19	97		20	99		2	
4-Chlorotoluene	20	80	120	15	0.0	20	99		19	97		2	
tert-butylbenzene	20	80	120	15	0.0	19	96		20	98		2	
1,2,4-Trimethylbenzene	20	80	120	15	0.0	20	102		21	103		1	
sec-butylbenzene	20	80	120	15	0.0	20	98		20	99		1	
p-isopropyltoluene	20	80	120	15	0.0	19	97		20	98		1	
1,3-Dichlorobenzene	20	80	120	15	0.0	19	96		20	99		3	
1,4-Dichlorobenzene	20	80	120	15	0.0	20	99		20	99		0	
n-butylbenzene	20	80	120	15	0.0	20	101		20	100		1	
1,2-Dichlorobenzene	20	80	120	15	0.0	20	98		20	99		0	
1,2-Dibromo-3-chloropropane	20	80	120	15	0.0	17	83		19	95		13	
1,2,4-Trichlorobenzene	20	80	120	15	0.0	20	99		20	98		1	
Hexachlorobutadiene	20	80	120	15	0.0	21	103		19	94		9	
Naphthalene	20	80	120	15	0.0	20	98		21	104		6	
1,2,3-Trichlorobenzene	20	80	120	15	0.0	22	108		21	106		2	
1,3,5-Trichlorobenzene	20	80	120	15	0.0	22	110		21	106		4	

# Column to be used to flag recovery and RPD values outside of QC limits

\* Values outside QC limits

Non-spiked result of "0" used in place of "U" to allow calculation of spike recovery

Comments: \_\_\_\_\_  
\_\_\_\_\_

## SEMI-VOLATILE DATA SUMMARIES

Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

October 28, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** SME 734-08  
**Project Number:**  
**Field Sample ID:** LAB QC

**Lab Sample ID:** B10208AW  
**Matrix:** Aqueous  
**Percent Solid:** N/A  
**Dilution Factor:** 1.0  
**Collection Date:** N/A  
**Lab Receipt Date:** N/A  
**Extraction Date:** 10/20/08  
**Analysis Date:** 10/21/08

PAGE ONE

ANALYTICAL RESULTS SEMI-VOLATILE ORGANICS					
ACID COMPOUND	Quantitation Limit µg/L	Result µg/L	ACID COMPOUND	Quantitation Limit µg/L	Result µg/L
2-Chlorophenol	5	U	Pentachlorophenol	10	U
4-Chloro-3-methylphenol	10	U	Phenol	5	U
2,4-Dichlorophenol	5	U	2,4,5-Trichlorophenol	5	U
2,4-Dimethylphenol	5	U	2,4,6-Trichlorophenol	5	U
2,4-dinitrophenol	5	U	Benzoic Acid	10	U
4,6-Dinitro-2-methylphenol	5	U	2-Methylphenol	5	U
2-Nitrophenol	5	U	3+4-Methylphenol	5	U
2,6-Dichlorophenol	5	U	Benzyl Alcohol	5	U
4-Nitrophenol	5	U	2,3,4,6-Tetrachlorophenol	5	U
Acid Surrogate Standard Recovery					
2-Fluorophenol	50 %	d5-Phenol	35 %	2,4,6-Tribromophenol	90 %
BASE NEUTRAL COMPOUND	Quantitation Limit µg/L	Result µg/L	BASE NEUTRAL COMPOUND	Quantitation Limit µg/L	Result µg/L
1,2-Dichlorobenzene	2	U	Hexachlorobenzene	2	U
1,3-Dichlorobenzene	2	U	* Benzidine	20	U
1,4-Dichlorobenzene	2	U	3,3'-Dichlorobenzidine	20	U
2,4-Dinitrotoluene	2	U	Azobenzene	2	U
2,6-Dinitrotoluene	2	U	Bis(2-chloroethoxy)methane	2	U
Nitrobenzene	2	U	bis(2-chloroethyl) ether	2	U
Hexachlorobutadiene	2	U	bis(2-chloroisopropyl)ether	2	U
Dimethyl Phthalate	2	U	4-bromophenyl phenyl ether	2	U
Di-n-butyl phthalate	2	U	Butyl benzyl phthalate	2	U
di-n-octyl-phthalate	2	U	4-Chlorophenyl phenyl ether	2	U
Bis (2-ethylhexyl) phthalate	2	U	Diethyl Phthalate	2	U
1,2,4-Trichlorobenzene	2	U	Hexachlorocyclopentadiene	2	U
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8270C.

Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

October 28, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**

Project Name: SME 734-08

Project Number:

Field Sample ID: LAB QC

Lab Sample ID: B10208AW  
Matrix: Aqueous  
Percent Solid: N/A  
Dilution Factor: 1.0  
Collection Date: N/A  
Lab Receipt Date: N/A  
Extraction Date: 10/20/08  
Analysis Date: 10/21/08

PAGE TWO

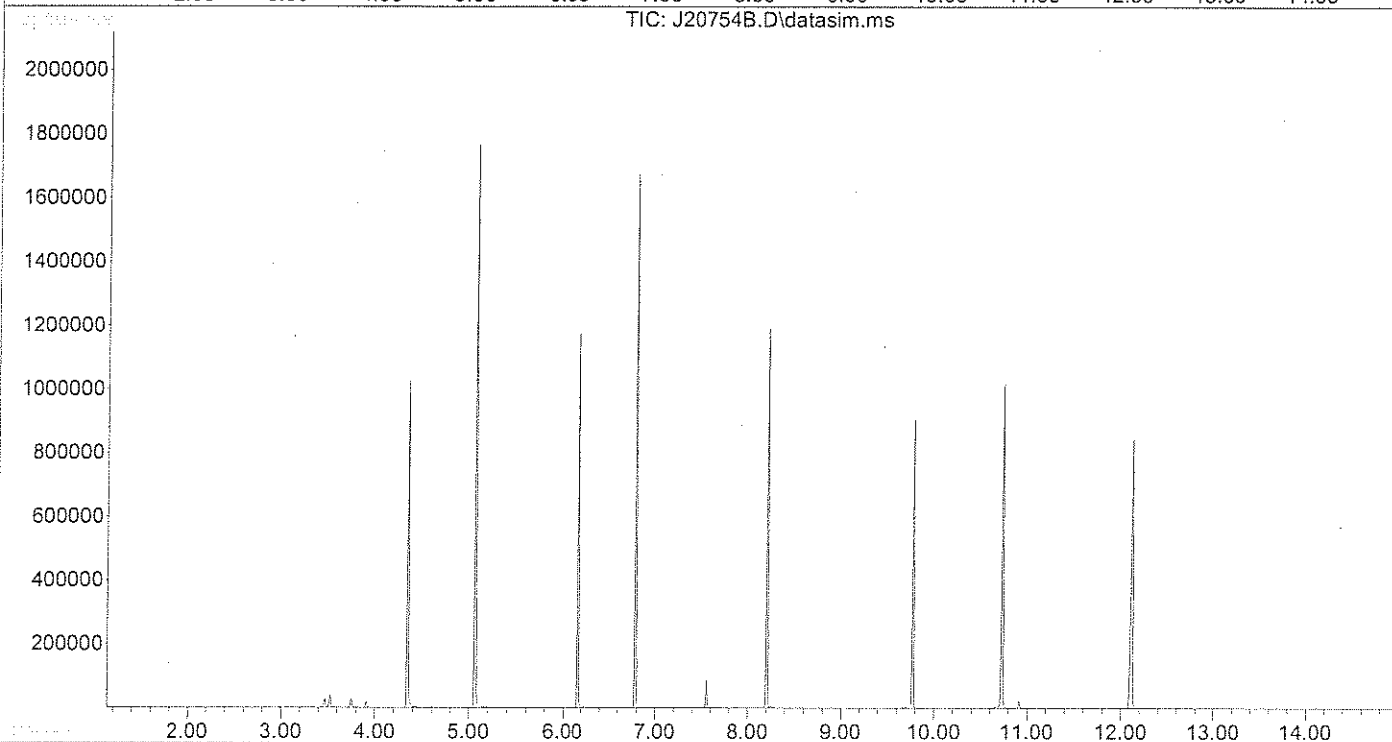
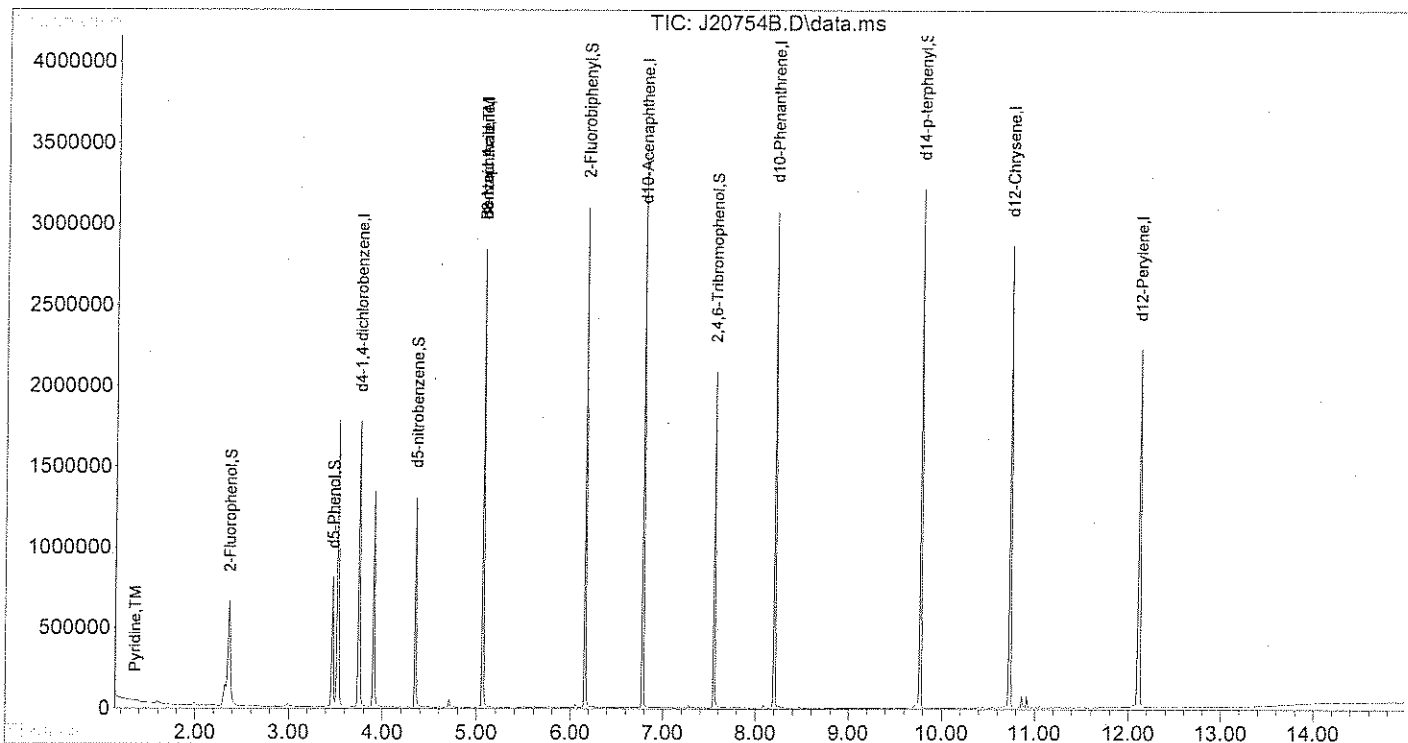
ANALYTICAL RESULTS SEMI-VOLATILE ORGANICS					
BASE NEUTRAL COMPOUND	Quantitation Limit µg/L	Result µg/L	BASE NEUTRAL COMPOUND	Quantitation Limit µg/L	Result µg/L
Acenaphthene	2	U	N-nitrosodimethylamine	2	U
Acenaphthylene	2	U	N-nitroso-di-n-propylamine	2	U
Anthracene	2	U	n-nitrosodiphenylamine	2	U
Benzo[a]anthracene	2	U	Pyridine	2	U
Benzo[a] pyrene	2	U	2-Methylnaphthalene	2	U
Benzo[b] fluoranthene	2	U	2-Chloronaphthalene	2	U
Benzo[k] fluoranthene	2	U	Naphthalene	2	U
Benzo(g,h,i) perylene	2	U	Phenanthrene	2	U
Chrysene	2	U	Dibenzofuran	2	U
Dibenz [a,h] anthracene	2	U	Aniline	2	U
Fluoranthene	2	U	4-Chloroaniline	2	U
Fluorene	2	U	2-Nitroaniline	2	U
Indeno [1,2,3-cd] pyrene	2	U	3-Nitroaniline	2	U
Pyrene	2	U	4-Nitroaniline	2	U
Hexachloroethane	2	U	Carbazole	2	U
Isophorone	2	U			
Base Neutral Surrogate Standard Recovery					
2-Fluorobiphenyl	75 %	d5-nitrobenzene	78 %	d14-p-terphenyl	82 %
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8270C.

**COMMENTS:** \*Due to the reactive nature of this compound, the Benzidine quantitation limit is estimated. Analytics is not NELAC certified for Benzidine in RCRA aqueous samples.

Data Path : C:\msdchem\1\DATA\102108-J\  
Data File : J20754B.D  
Acq On : 21 Oct 2008 9:11 pm  
Operator :  
Sample : B10208AW  
Misc :  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 21 22:30:39 2008  
Quant Method : C:\msdchem\1\METHODS\ABN09098.M  
Quant Title : ABN FULL SCAN  
QLast Update : Tue Oct 21 20:51:49 2008  
Response via : Initial Calibration



Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

October 28, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** SME 734-08  
**Project Number:**  
**Field Sample ID:** LAB QC

**Lab Sample ID:** B10208AW RR  
**Matrix:** Aqueous  
**Percent Solid:** N/A  
**Dilution Factor:** 1.0  
**Collection Date:** N/A  
**Lab Receipt Date:** N/A  
**Extraction Date:** 10/20/08  
**Analysis Date:** 10/22/08

PAGE ONE

ANALYTICAL RESULTS SEMI-VOLATILE ORGANICS					
ACID COMPOUND	Quantitation Limit µg/L	Result µg/L	ACID COMPOUND	Quantitation Limit µg/L	Result µg/L
2-Chlorophenol	5	U	Pentachlorophenol	10	U
4-Chloro-3-methylphenol	10	U	Phenol	5	U
2,4-Dichlorophenol	5	U	2,4,5-Trichlorophenol	5	U
2,4-Dimethylphenol	5	U	2,4,6-Trichlorophenol	5	U
2,4-dinitrophenol	5	U	Benzoic Acid	10	U
4,6-Dinitro-2-methylphenol	5	U	2-Methylphenol	5	U
2-Nitrophenol	5	U	3+4-Methylphenol	5	U
2,6-Dichlorophenol	5	U	Benzyl Alcohol	5	U
4-Nitrophenol	5	U	2,3,4,6-Tetrachlorophenol	5	U
Acid Surrogate Standard Recovery					
2-Fluorophenol	49 %	d5-Phenol	34 %	2,4,6-Tribromophenol	90 %
BASE NEUTRAL COMPOUND	Quantitation Limit µg/L	Result µg/L	BASE NEUTRAL COMPOUND	Quantitation Limit µg/L	Result µg/L
1,2-Dichlorobenzene	2	U	Hexachlorobenzene	2	U
1,3-Dichlorobenzene	2	U	* Benzidine	20	U
1,4-Dichlorobenzene	2	U	3,3'-Dichlorobenzidine	20	U
2,4-Dinitrotoluene	2	U	Azobenzene	2	U
2,6-Dinitrotoluene	2	U	Bis(2-chloroethoxy)methane	2	U
Nitrobenzene	2	U	bis(2-chloroethyl) ether	2	U
Hexachlorobutadiene	2	U	bis(2-chloroisopropyl)ether	2	U
Dimethyl Phthalate	2	U	4-bromophenyl phenyl ether	2	U
Di-n-butyl phthalate	2	U	Butyl benzyl phthalate	2	U
di-n-octyl-phthalate	2	U	4-Chlorophenyl phenyl ether	2	U
Bis (2-ethylhexyl) phthalate	2	U	Diethyl Phthalate	2	U
1,2,4-Trichlorobenzene	2	U	Hexachlorocyclopentadiene	2	U
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8270C.

Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

October 28, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**

Project Name: SME 734-08

Project Number:

Field Sample ID: LAB QC

Lab Sample ID: B10208AW RR  
Matrix: Aqueous  
Percent Solid: N/A  
Dilution Factor: 1.0  
Collection Date: N/A  
Lab Receipt Date: N/A  
Extraction Date: 10/20/08  
Analysis Date: 10/22/08

PAGE TWO

ANALYTICAL RESULTS SEMI-VOLATILE ORGANICS					
BASE NEUTRAL COMPOUND	Quantitation Limit µg/L	Result µg/L	BASE NEUTRAL COMPOUND	Quantitation Limit µg/L	Result µg/L
Acenaphthene	2	U	N-nitrosodimethylamine	2	U
Acenaphthylene	2	U	N-nitroso-di-n-propylamine	2	U
Anthracene	2	U	n-nitrosodiphenylamine	2	U
Benzo[a]anthracene	2	U	Pyridine	2	U
Benzo[a] pyrene	2	U	2-Methylnaphthalene	2	U
Benzo[b] fluoranthene	2	U	2-Chloronaphthalene	2	U
Benzo[k] fluoranthene	2	U	Naphthalene	2	U
Benzo( g,h,i) perylene	2	U	Phenanthrene	2	U
Chrysene	2	U	Dibenzofuran	2	U
Dibenz [a,h] anthracene	2	U	Aniline	2	U
Fluoranthene	2	U	4-Chloroaniline	2	U
Fluorene	2	U	2-Nitroaniline	2	U
Indeno [1,2,3-cd] pyrene	2	U	3-Nitroaniline	2	U
Pyrene	2	U	4-Nitroaniline	2	U
Hexachloroethane	2	U	Carbazole	2	U
Isophorone	2	U			
Base Neutral Surrogate Standard Recovery					
2-Fluorobiphenyl	75 %	d5-nitrobenzene	78 %	d14-p-terphenyl	80 %
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8270C.

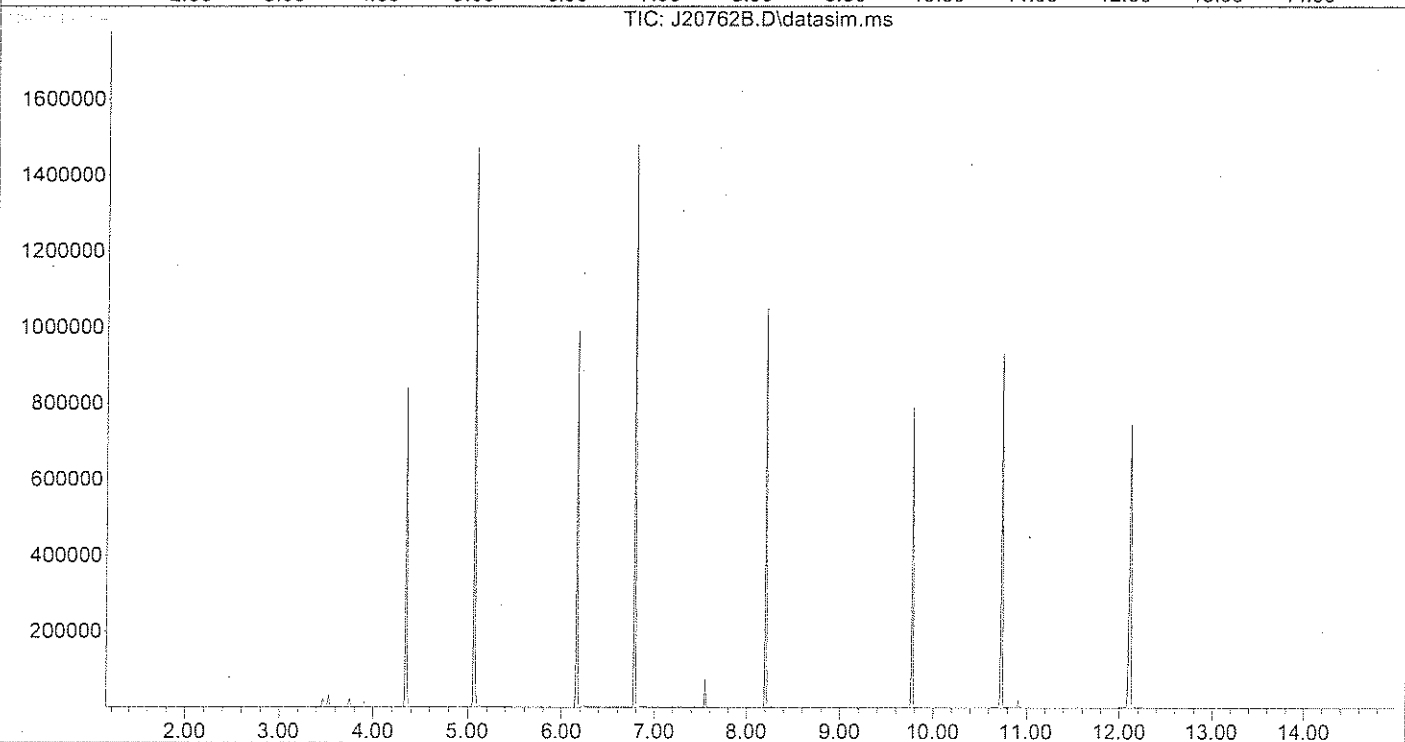
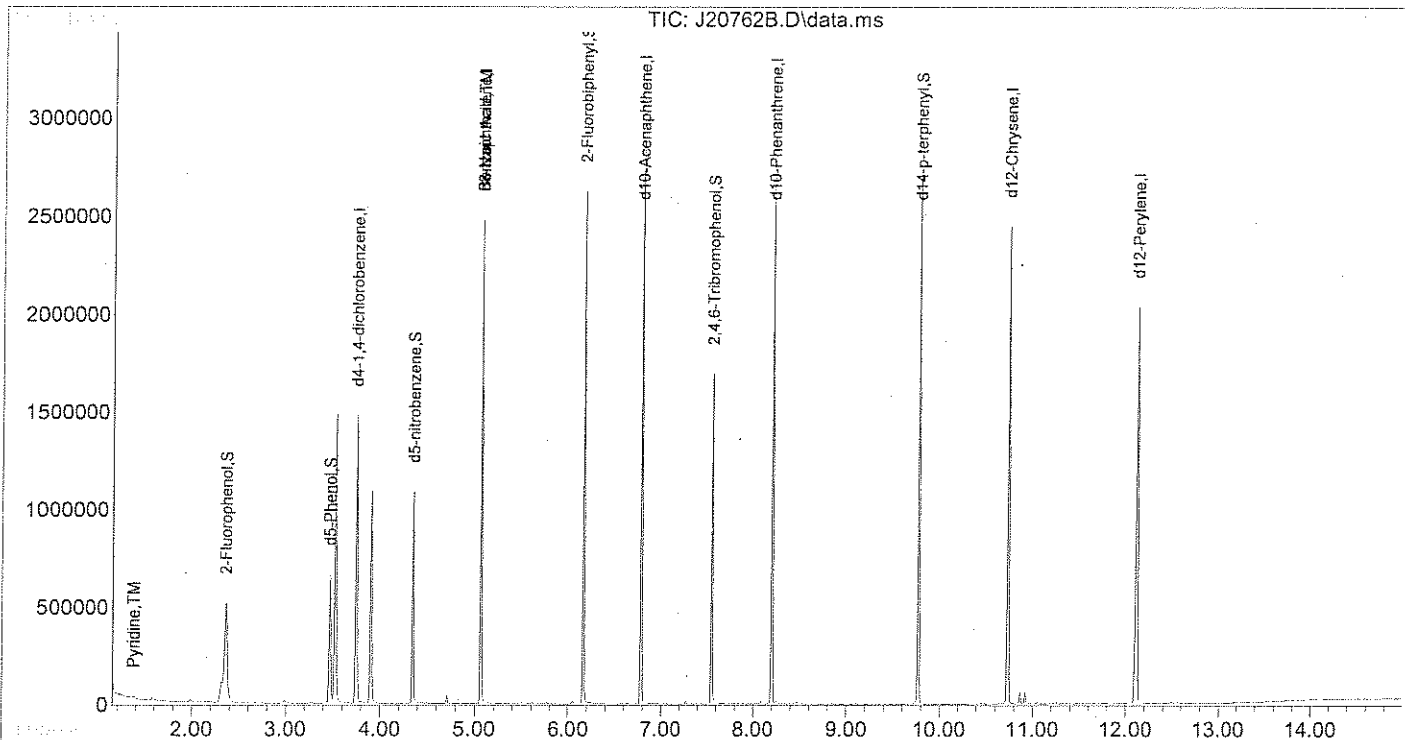
**COMMENTS:** \*Due to the reactive nature of this compound, the Benzidine quantitation limit is estimated. Analytics is not NELAC certified for Benzidine in RCRA aqueous samples.

*[Signature]*



Data Path : C:\msdchem\1\DATA\102108-J\  
Data File : J20762B.D  
Acq On : 22 Oct 2008 12:22 am  
Operator :  
Sample : B10208AW,,RR  
Misc :  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 22 20:10:24 2008  
Quant Method : C:\msdchem\1\METHODS\ABN09098.M  
Quant Title : ABN FULL SCAN  
QLast Update : Wed Oct 22 20:10:01 2008  
Response via : Initial Calibration



Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

October 28, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** SME 734-08  
**Project Number:**  
**Field Sample ID:** LAB QC

**Lab Sample ID:** B10218AASE  
**Matrix:** Solid  
**Percent Solid:** 100  
**Dilution Factor:** 1.0  
**Collection Date:** N/A  
**Lab Receipt Date:** N/A  
**Extraction Date:** 10/21/08  
**Analysis Date:** 10/22/08

PAGE ONE

ANALYTICAL RESULTS SEMI-VOLATILE ORGANICS					
ACID COMPOUND	Quantitation Limit µg/kg	Result µg/kg	ACID COMPOUND	Quantitation Limit µg/kg	Result µg/kg
2-Chlorophenol	350	U	Pentachlorophenol	700	U
4-Chloro-3-methylphenol	700	U	Phenol	700	U
2,4-Dichlorophenol	350	U	2,4,5-Trichlorophenol	500	U
2,4-Dimethylphenol	350	U	2,4,6-Trichlorophenol	350	U
2,4-dinitrophenol	700	U	Benzoic Acid	1000	U
4,6-Dinitro-2-methylphenol	700	U	2-Methylphenol	700	U
2-Nitrophenol	700	U	3+4-Methylphenol	700	U
2,6-Dichlorophenol	500	U	Benzyl Alcohol	700	U
4-Nitrophenol	700	U	2,3,4,6-Tetrachlorophenol	700	U
Acid Surrogate Standard Recovery					
2-Fluorophenol	60 %	d5-Phenol	64 %	2,4,6-Tribromophenol	89 %
BASE NEUTRAL COMPOUND	Quantitation Limit µg/kg	Result µg/kg	BASE NEUTRAL COMPOUND	Quantitation Limit µg/kg	Result µg/kg
1,2-Dichlorobenzene	500	U	Hexachlorobenzene	350	U
1,3-Dichlorobenzene	500	U	* Benzidine	500	U
1,4-Dichlorobenzene	350	U	3,3'-Dichlorobenzidine	500	U
2,4-Dinitrotoluene	350	U	Azobenzene	500	U
2,6-Dinitrotoluene	500	U	Bis(2-chloroethoxy)methane	500	U
Nitrobenzene	500	U	bis(2-chloroethyl) ether	350	U
Hexachlorobutadiene	500	U	bis(2-chloroisopropyl)ether	350	U
Dimethyl Phthalate	500	U	4-bromophenyl phenyl ether	500	U
Di-n-butyl phthalate	500	U	Butyl benzyl phthalate	500	U
di-n-octyl-phthalate	500	U	4-Chlorophenyl phenyl ether	500	U
Bis (2-ethylhexyl) phthalate	500	U	Diethyl Phthalate	500	U
1,2,4-Trichlorobenzene	500	U	Hexachlorocyclopentadiene	500	U
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8270C.

Mr. Herb Kodis  
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PO Box 1107  
Yarmouth, ME 04096-1107

October 28, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**

Project Name: SME 734-08

Project Number:

Field Sample ID: LAB QC

Lab Sample ID: B10218AASE

Matrix: Solid

Percent Solid: 100

Dilution Factor: 1.0

Collection Date: N/A

Lab Receipt Date: N/A

Extraction Date: 10/21/08

Analysis Date: 10/22/08

PAGE TWO

ANALYTICAL RESULTS SEMI-VOLATILE ORGANICS					
BASE NEUTRAL COMPOUND	Quantitation Limit µg/kg	Result µg/kg	BASE NEUTRAL COMPOUND	Quantitation Limit µg/kg	Result µg/kg
Acenaphthene	267	U	N-nitrosodimethylamine	500	U
Acenaphthylene	267	U	N-nitroso-di-n-propylamine	500	U
Anthracene	267	U	n-nitrosodiphenylamine	500	U
Benzo[a]anthracene	267	U	Pyridine	500	U
Benzo[a] pyrene	267	U	2-Methylnaphthalene	267	U
Benzo[b] fluoranthene	267	U	2-Chloronaphthalene	267	U
Benzo[k] fluoranthene	267	U	Naphthalene	267	U
Benzo( g,h,i) perylene	267	U	Phenanthrene	267	U
Chrysene	267	U	Dibenzofuran	267	U
Dibenz [a,h] anthracene	267	U	Aniline	500	U
Fluoranthene	267	U	4-Chloroaniline	500	U
Fluorene	267	U	2-Nitroaniline	500	U
Indeno [1,2,3-cd] pyrene	267	U	3-Nitroaniline	500	U
Pyrene	267	U	4-Nitroaniline	500	U
Hexachloroethane	350	U	Carbazole	267	U
Isophorone	500	U			
<b>Base Neutral Surrogate Standard Recovery</b>					
2-Fluorobiphenyl	64	%	d5-nitrobenzene	65	%
			d14-p-terphenyl	82	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

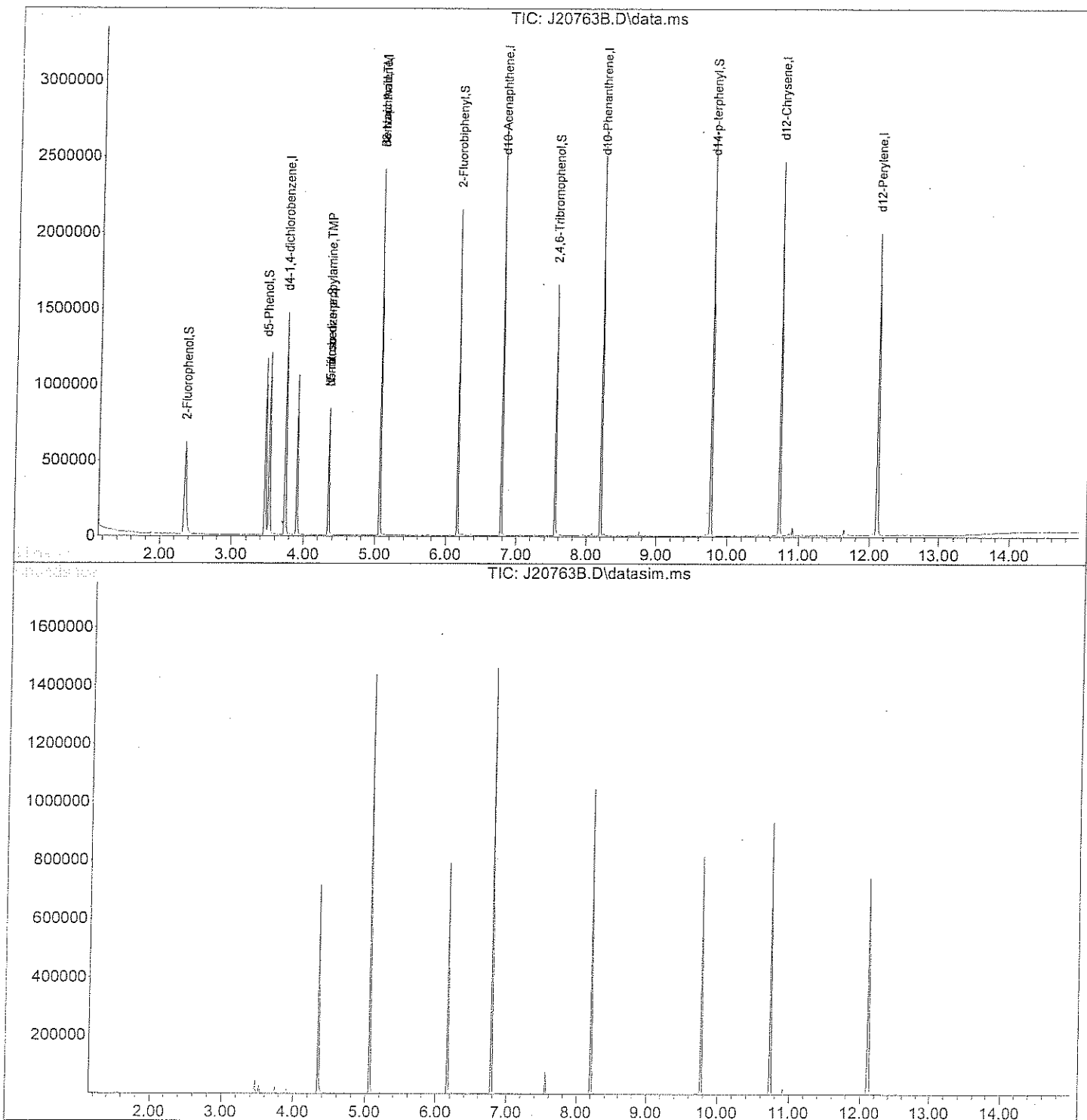
**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8270C.

**COMMENTS:** \*Due to the reactive nature of this compound, the Benzidine quantitation limit is estimated. Analytics is not NELAC certified for Benzidine in RCRA aqueous samples. Results are expressed on a dry weight basis.

*M. J. McNeill*

Data Path : C:\msdchem\1\DATA\102108-J\  
Data File : J20763B.D  
Acq On : 22 Oct 2008 12:43 am  
Operator :  
Sample : B10218AASE  
Misc : SOIL  
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 22 20:10:27 2008  
Quant Method : C:\msdchem\1\METHODS\ABN09098.M  
Quant Title : ABN FULL SCAN  
QLast Update : Wed Oct 22 20:10:01 2008  
Response via : Initial Calibration



Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

October 29, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** SME 734-08  
**Project Number:**  
**Field Sample ID:** LAB QC

**Lab Sample ID:** B10228AASE  
**Matrix:** Solid  
**Percent Solid:** 100  
**Dilution Factor:** 1.0  
**Collection Date:** N/A  
**Lab Receipt Date:** N/A  
**Extraction Date:** 10/22/08  
**Analysis Date:** 10/23/08

PAGE ONE

ANALYTICAL RESULTS SEMI-VOLATILE ORGANICS					
ACID COMPOUND	Quantitation Limit µg/kg	Result µg/kg	ACID COMPOUND	Quantitation Limit µg/kg	Result µg/kg
2-Chlorophenol	350	U	Pentachlorophenol	700	U
4-Chloro-3-methylphenol	700	U	Phenol	700	U
2,4-Dichlorophenol	350	U	2,4,5-Trichlorophenol	500	U
2,4-Dimethylphenol	350	U	2,4,6-Trichlorophenol	350	U
2,4-dinitrophenol	700	U	Benzoic Acid	1000	U
4,6-Dinitro-2-methylphenol	700	U	2-Methylphenol	700	U
2-Nitrophenol	700	U	3+4-Methylphenol	700	U
2,6-Dichlorophenol	500	U	Benzyl Alcohol	700	U
4-Nitrophenol	700	U	2,3,4,6-Tetrachlorophenol	700	U
Acid Surrogate Standard Recovery					
2-Fluorophenol	52 %	d5-Phenol	56 %	2,4,6-Tribromophenol	71 %
BASE NEUTRAL COMPOUND	Quantitation Limit µg/kg	Result µg/kg	BASE NEUTRAL COMPOUND	Quantitation Limit µg/kg	Result µg/kg
1,2-Dichlorobenzene	500	U	Hexachlorobenzene	350	U
1,3-Dichlorobenzene	500	U	* Benzidine	500	U
1,4-Dichlorobenzene	350	U	3,3'-Dichlorobenzidine	500	U
2,4-Dinitrotoluene	350	U	Azobenzene	500	U
2,6-Dinitrotoluene	500	U	Bis(2-chloroethoxy)methane	500	U
Nitrobenzene	500	U	bis(2-chloroethyl) ether	350	U
Hexachlorobutadiene	500	U	bis(2-chloroisopropyl)ether	350	U
Dimethyl Phthalate	500	U	4-bromophenyl phenyl ether	500	U
Di-n-butyl phthalate	500	U	Butyl benzyl phthalate	500	U
di-n-octyl-phthalate	500	U	4-Chlorophenyl phenyl ether	500	U
Bis (2-ethylhexyl) phthalate	500	U	Diethyl Phthalate	500	U
1,2,4-Trichlorobenzene	500	U	Hexachlorocyclopentadiene	500	U
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8270C.

Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

October 29, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** SME 734-08  
**Project Number:**  
**Field Sample ID:** LAB QC

**Lab Sample ID:** B10228AASE  
**Matrix:** Solid  
**Percent Solid:** 100  
**Dilution Factor:** 1.0  
**Collection Date:** N/A  
**Lab Receipt Date:** N/A  
**Extraction Date:** 10/22/08  
**Analysis Date:** 10/23/08

PAGE TWO

ANALYTICAL RESULTS SEMI-VOLATILE ORGANICS					
BASE NEUTRAL COMPOUND	Quantitation Limit µg/kg	Result µg/kg	BASE NEUTRAL COMPOUND	Quantitation Limit µg/kg	Result µg/kg
Acenaphthene	267	U	N-nitrosodimethylamine	500	U
Acenaphthylene	267	U	N-nitroso-di-n-propylamine	500	U
Anthracene	267	U	n-nitrosodiphenylamine	500	U
Benzo[a]anthracene	267	U	Pyridine	500	U
Benzo[a] pyrene	267	U	2-Methylnaphthalene	267	U
Benzo[b] fluoranthene	267	U	2-Chloronaphthalene	267	U
Benzo[k] fluoranthene	267	U	Naphthalene	267	U
Benzo( g,h,i) perylene	267	U	Phenanthrene	267	U
Chrysene	267	U	Dibenzofuran	267	U
Dibenz [a,h] anthracene	267	U	Aniline	500	U
Fluoranthene	267	U	4-Chloroaniline	500	U
Fluorene	267	U	2-Nitroaniline	500	U
Indeno [1,2,3-cd] pyrene	267	U	3-Nitroaniline	500	U
Pyrene	267	U	4-Nitroaniline	500	U
Hexachloroethane	350	U	Carbazole	267	U
Isophorone	500	U			
Base Neutral Surrogate Standard Recovery					
2-Fluorobiphenyl	53 %	d5-nitrobenzene	55 %	d14-p-terphenyl	73 %
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

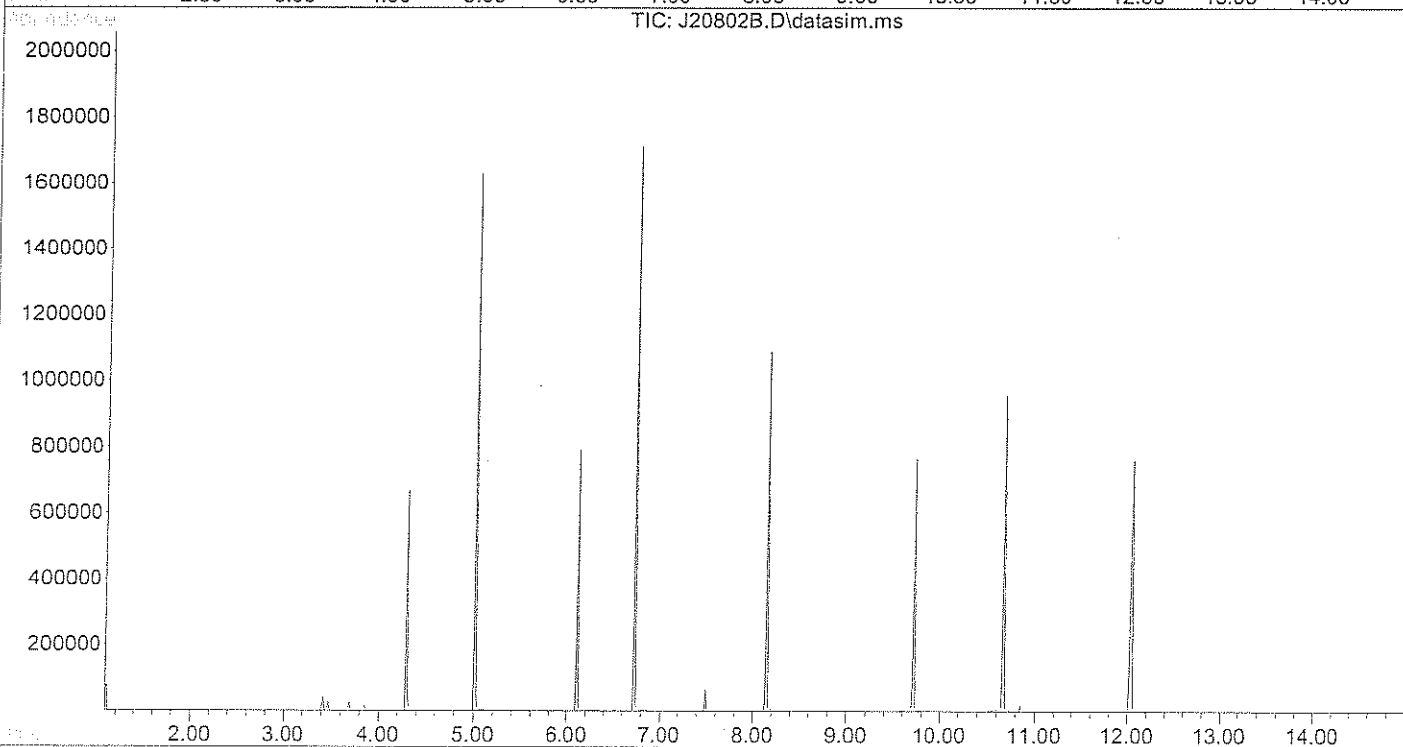
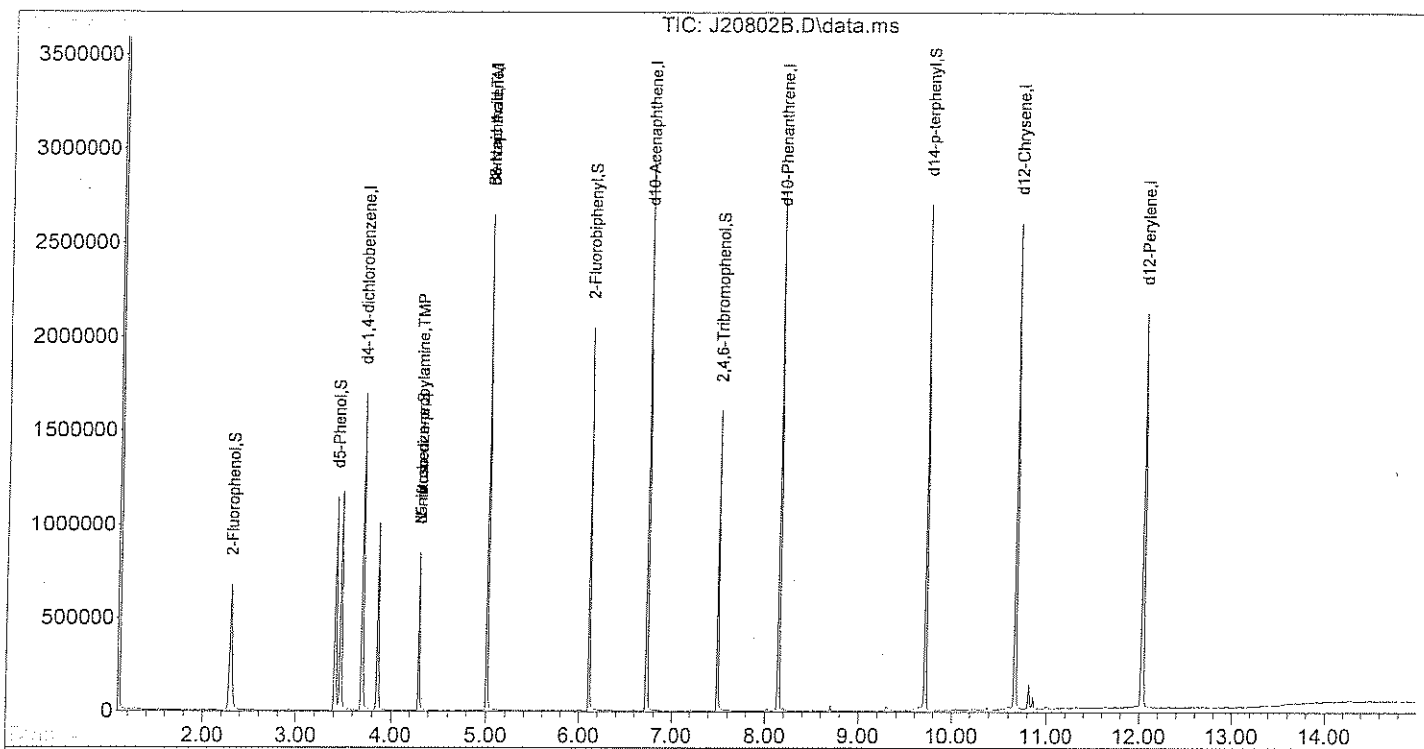
**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8270C.

**COMMENTS:** \*Due to the reactive nature of this compound, the Benzidine quantitation limit is estimated. Analytics is not NELAC certified for Benzidine in RCRA aqueous samples.  
Results are expressed on a dry weight basis.



Data Path : C:\msdchem\1\DATA\102208-J\  
Data File : J20802B.D  
Acq On : 23 Oct 2008 2:56 am  
Operator :  
Sample : B10228AASE  
Misc : SOIL  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 23 20:16:39 2008  
Quant Method : C:\msdchem\1\METHODS\ABN09098.M  
Quant Title : ABN FULL SCAN  
QLast Update : Thu Oct 23 20:06:45 2008  
Response via : Initial Calibration



Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

October 28, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** SME 734-08

**Project Number:**

**Field Sample ID:** TANK-01

**Lab Sample ID:** 62501-1  
**Matrix:** Solid  
**Percent Solid:** 22  
**Dilution Factor:** 4.3  
**Collection Date:** 10/16/08  
**Lab Receipt Date:** 10/20/08  
**Extraction Date:** 10/21/08  
**Analysis Date:** 10/22/08

PAGE ONE

ANALYTICAL RESULTS SEMI-VOLATILE ORGANICS					
ACID COMPOUND	Quantitation Limit µg/kg	Result µg/kg	ACID COMPOUND	Quantitation Limit µg/kg	Result µg/kg
2-Chlorophenol	1500	U	Pentachlorophenol	3000	U
4-Chloro-3-methylphenol	3000	U	Phenol	3000	U
2,4-Dichlorophenol	1500	U	2,4,5-Trichlorophenol	2200	U
2,4-Dimethylphenol	1500	U	2,4,6-Trichlorophenol	1500	U
2,4-dinitrophenol	3000	U	Benzoic Acid	4300	U
4,6-Dinitro-2-methylphenol	3000	U	2-Methylphenol	3000	U
2-Nitrophenol	3000	U	3+4-Methylphenol	3000	U
2,6-Dichlorophenol	2200	U	Benzyl Alcohol	3000	U
4-Nitrophenol	3000	U	2,3,4,6-Tetrachlorophenol	3000	U
Acid Surrogate Standard Recovery					
2-Fluorophenol	67 %	d5-Phenol	75 %	2,4,6-Tribromophenol	108 %
BASE NEUTRAL COMPOUND	Quantitation Limit µg/kg	Result µg/kg	BASE NEUTRAL COMPOUND	Quantitation Limit µg/kg	Result µg/kg
1,2-Dichlorobenzene	2200	U	Hexachlorobenzene	1500	U
1,3-Dichlorobenzene	2200	U	* Benzidine	2200	U
1,4-Dichlorobenzene	1500	U	3,3'-Dichlorobenzidine	2200	U
2,4-Dinitrotoluene	1500	U	Azobenzene	2200	U
2,6-Dinitrotoluene	2200	U	Bis(2-chloroethoxy)methane	2200	U
Nitrobenzene	2200	U	bis(2-chloroethyl) ether	1500	U
Hexachlorobutadiene	2200	U	bis(2-chloroisopropyl)ether	1500	U
Dimethyl Phthalate	2200	U	4-bromophenyl phenyl ether	2200	U
Di-n-butyl phthalate	2200	U	Butyl benzyl phthalate	2200	U
di-n-octyl-phthalate	2200	U	4-Chlorophenyl phenyl ether	2200	U
Bis (2-ethylhexyl) phthalate	2200	2300	Diethyl Phthalate	2200	U
1,2,4-Trichlorobenzene	2200	U	Hexachlorocyclopentadiene	2200	U
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8270C.

*M. L. Hall*



Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

October 28, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**

Project Name: SME 734-08

Project Number:

Field Sample ID: TANK-01

Lab Sample ID: 62501-1

Matrix: Solid

Percent Solid: 22

Dilution Factor: 4.3

Collection Date: 10/16/08

Lab Receipt Date: 10/20/08

Extraction Date: 10/21/08

Analysis Date: 10/22/08

PAGE TWO

ANALYTICAL RESULTS SEMI-VOLATILE ORGANICS					
BASE NEUTRAL COMPOUND	Quantitation Limit µg/kg	Result µg/kg	BASE NEUTRAL COMPOUND	Quantitation Limit µg/kg	Result µg/kg
Acenaphthene	1200	U	N-nitrosodimethylamine	2200	U
Acenaphthylene	1200	U	N-nitroso-di-n-propylamine	2200	U
Anthracene	1200	U	n-nitrosodiphenylamine	2200	U
Benzo[a]anthracene	1200	U	Pyridine	2200	U
Benzo[a] pyrene	1200	U	2-Methylnaphthalene	1200	U
Benzo[b] fluoranthene	1200	U	2-Chloronaphthalene	1200	U
Benzo[k] fluoranthene	1200	U	Naphthalene	1200	U
Benzo( g,h,i) perylene	1200	U	Phenanthrene	1200	U
Chrysene	1200	U	Dibenzofuran	1200	U
Dibenz [a,h] anthracene	1200	U	Aniline	2200	U
Fluoranthene	1200	U	4-Chloroaniline	2200	U
Fluorene	1200	U	2-Nitroaniline	2200	U
Indeno [1,2,3-cd] pyrene	1200	U	3-Nitroaniline	2200	U
Pyrene	1200	U	4-Nitroaniline	2200	U
Hexachloroethane	1500	U	Carbazole	1200	U
Isophorone	2200	U			
Base Neutral Surrogate Standard Recovery					
2-Fluorobiphenyl	79 %		d5-nitrobenzene	75 %	
					d14-p-terphenyl 83 %
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

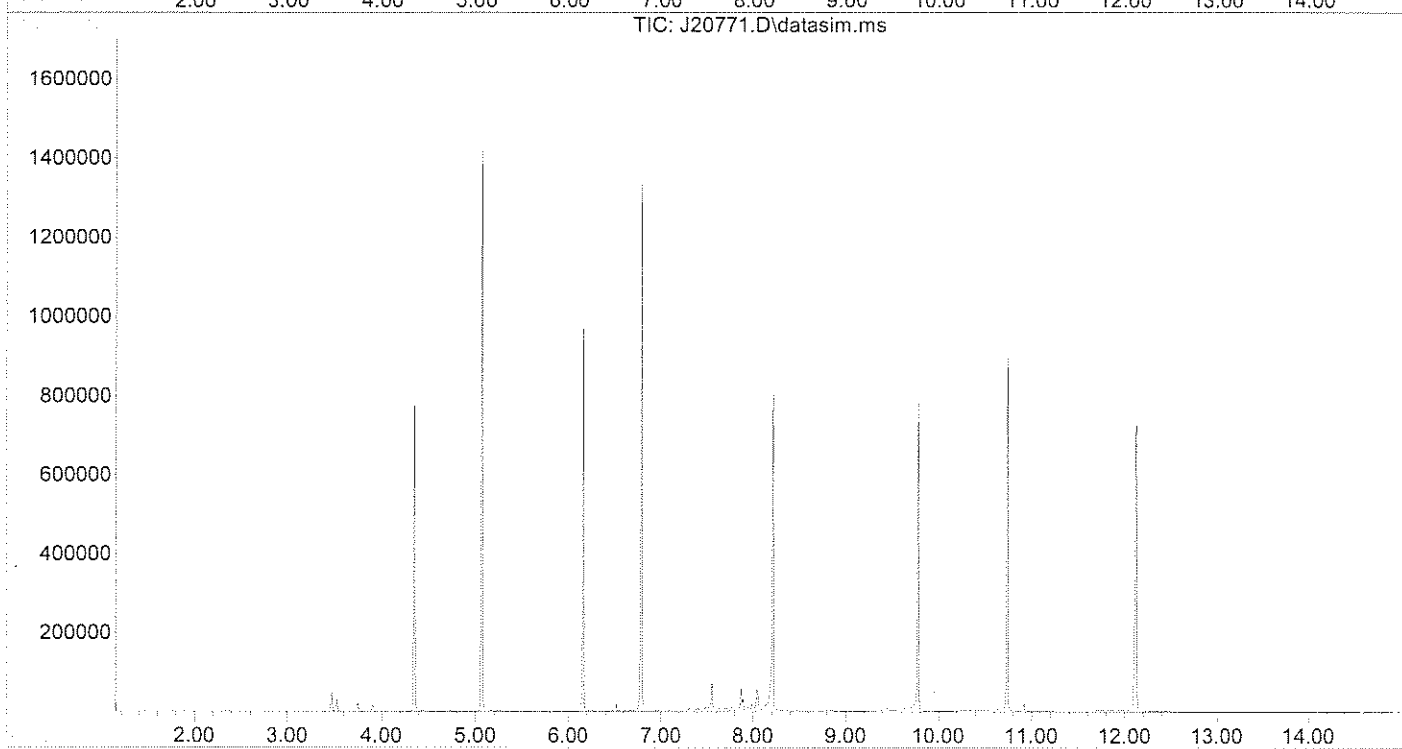
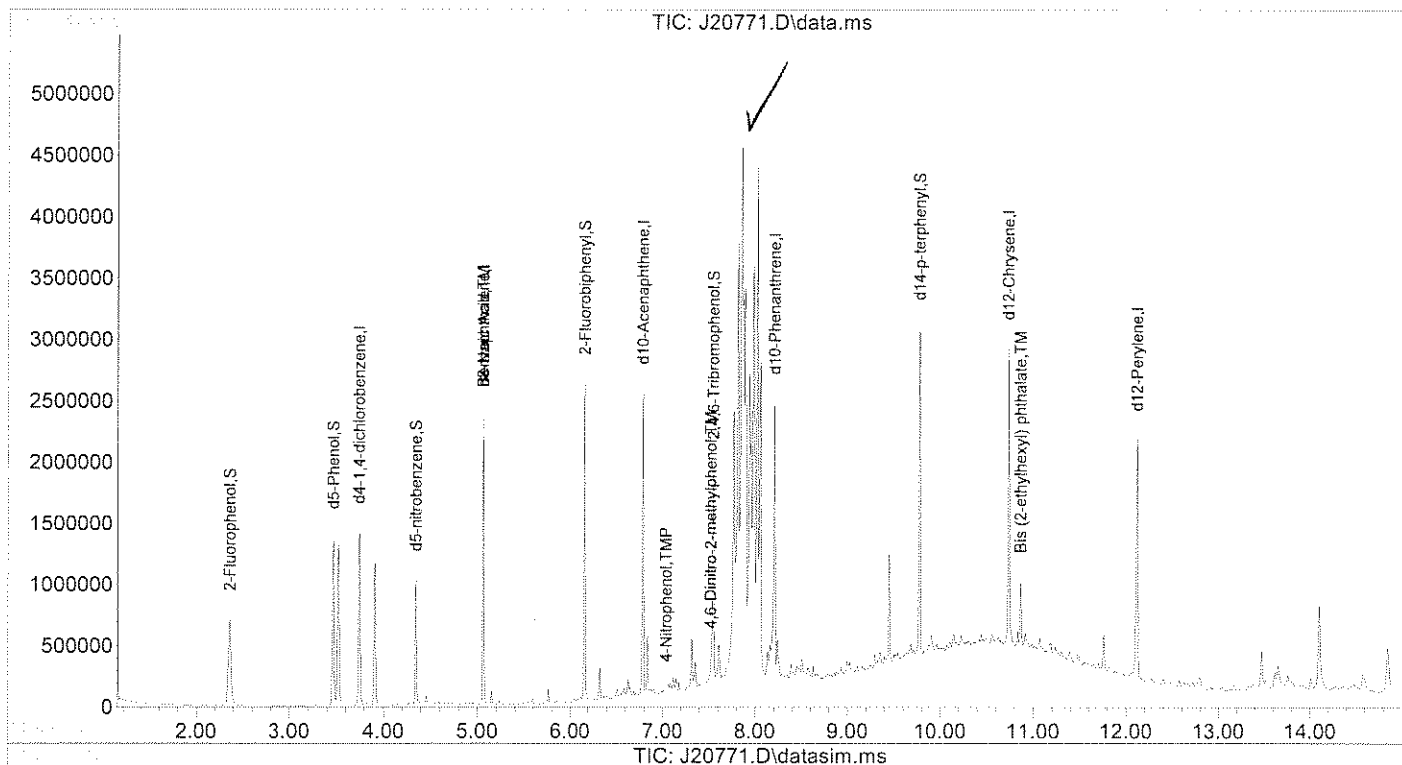
**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8270C.

**COMMENTS:** \*Due to the reactive nature of this compound, the Benzidine quantitation limit is estimated. Analytics is not NELAC certified for Benzidine in RCRA aqueous samples.  
Results are expressed on a dry weight basis.



Data Path : C:\msdchem\1\DATA\102108-J\  
Data File : J20771.D  
Acq On : 22 Oct 2008 3:29 am  
Operator :  
Sample : 62501-1  
Misc : SOIL  
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 22 20:10:56 2008  
Quant Method : C:\msdchem\1\METHODS\ABN09098.M  
Quant Title : ABN FULL SCAN  
QLast Update : Wed Oct 22 20:10:01 2008  
Response via : Initial Calibration



Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

October 28, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** SME 734-08  
**Project Number:**  
**Field Sample ID:** Bldg 10 Cistern

**Lab Sample ID:** 62501-2  
**Matrix:** Solid  
**Percent Solid:** 27  
**Dilution Factor:** 3.6  
**Collection Date:** 10/16/08  
**Lab Receipt Date:** 10/20/08  
**Extraction Date:** 10/21/08  
**Analysis Date:** 10/22/08

PAGE ONE

ANALYTICAL RESULTS SEMI-VOLATILE ORGANICS					
ACID COMPOUND	Quantitation Limit µg/kg	Result µg/kg	ACID COMPOUND	Quantitation Limit µg/kg	Result µg/kg
2-Chlorophenol	1300	U	Pentachlorophenol	2500	U
4-Chloro-3-methylphenol	2500	U	Phenol	2500	U
2,4-Dichlorophenol	1300	U	2,4,5-Trichlorophenol	1800	U
2,4-Dimethylphenol	1300	U	2,4,6-Trichlorophenol	1300	U
2,4-dinitrophenol	2500	U	Benzoic Acid	3600	U
4,6-Dinitro-2-methylphenol	2500	U	2-Methylphenol	2500	U
2-Nitrophenol	2500	U	3+4-Methylphenol	2500	U
2,6-Dichlorophenol	1800	U	Benzyl Alcohol	2500	U
4-Nitrophenol	2500	U	2,3,4,6-Tetrachlorophenol	2500	U
Acid Surrogate Standard Recovery					
2-Fluorophenol	63 %	d5-Phenol	76 %	2,4,6-Tribromophenol	94 %
BASE NEUTRAL COMPOUND	Quantitation Limit µg/kg	Result µg/kg	BASE NEUTRAL COMPOUND	Quantitation Limit µg/kg	Result µg/kg
1,2-Dichlorobenzene	1800	U	Hexachlorobenzene	1300	U
1,3-Dichlorobenzene	1800	U	* Benzidine	1800	U
1,4-Dichlorobenzene	1300	U	3,3'-Dichlorobenzidine	1800	U
2,4-Dinitrotoluene	1300	U	Azobenzene	1800	U
2,6-Dinitrotoluene	1800	U	Bis(2-chloroethoxy)methane	1800	U
Nitrobenzene	1800	U	bis(2-chloroethyl) ether	1300	U
Hexachlorobutadiene	1800	U	bis(2-chloroisopropyl)ether	1300	U
Dimethyl Phthalate	1800	U	4-bromophenyl phenyl ether	1800	U
Di-n-butyl phthalate	1800	U	Butyl benzyl phthalate	1800	U
di-n-octyl-phthalate	1800	U	4-Chlorophenyl phenyl ether	1800	U
Bis (2-ethylhexyl) phthalate	1800	U	Diethyl Phthalate	1800	U
1,2,4-Trichlorobenzene	1800	U	Hexachlorocyclopentadiene	1800	U
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8270C.

Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

October 28, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**

Project Name: SME 734-08

Project Number:

Field Sample ID: Bldg 10 Cistern

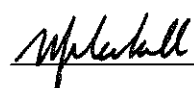
Lab Sample ID: 62501-2  
Matrix: Solid  
Percent Solid: 27  
Dilution Factor: 3.6  
Collection Date: 10/16/08  
Lab Receipt Date: 10/20/08  
Extraction Date: 10/21/08  
Analysis Date: 10/22/08

PAGE TWO

ANALYTICAL RESULTS SEMI-VOLATILE ORGANICS					
BASE NEUTRAL COMPOUND	Quantitation Limit µg/kg	Result µg/kg	BASE NEUTRAL COMPOUND	Quantitation Limit µg/kg	Result µg/kg
Acenaphthene	960	U	N-nitrosodimethylamine	1800	U
Acenaphthylene	960	U	N-nitroso-di-n-propylamine	1800	U
Anthracene	960	U	n-nitrosodiphenylamine	1800	U
Benzo[a]anthracene	960	U	Pyridine	1800	U
Benzo[a] pyrene	960	U	2-Methylnaphthalene	960	U
Benzo[b] fluoranthene	960	U	2-Chloronaphthalene	960	U
Benzo[k] fluoranthene	960	U	Naphthalene	960	U
Benzo(g,h,i) perylene	960	U	Phenanthrene	960	U
Chrysene	960	U	Dibenzofuran	960	U
Dibenz [a,h] anthracene	960	U	Aniline	1800	U
Fluoranthene	960	U	4-Chloroaniline	1800	U
Fluorene	960	U	2-Nitroaniline	1800	U
Indeno [1,2,3-cd] pyrene	960	U	3-Nitroaniline	1800	U
Pyrene	960	U	4-Nitroaniline	1800	U
Hexachloroethane	1300	U	Carbazole	960	U
Isophorone	1800	U			
Base Neutral Surrogate Standard Recovery					
2-Fluorobiphenyl	78	%	d5-nitrobenzene	73	%
			d14-p-terphenyl	79	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

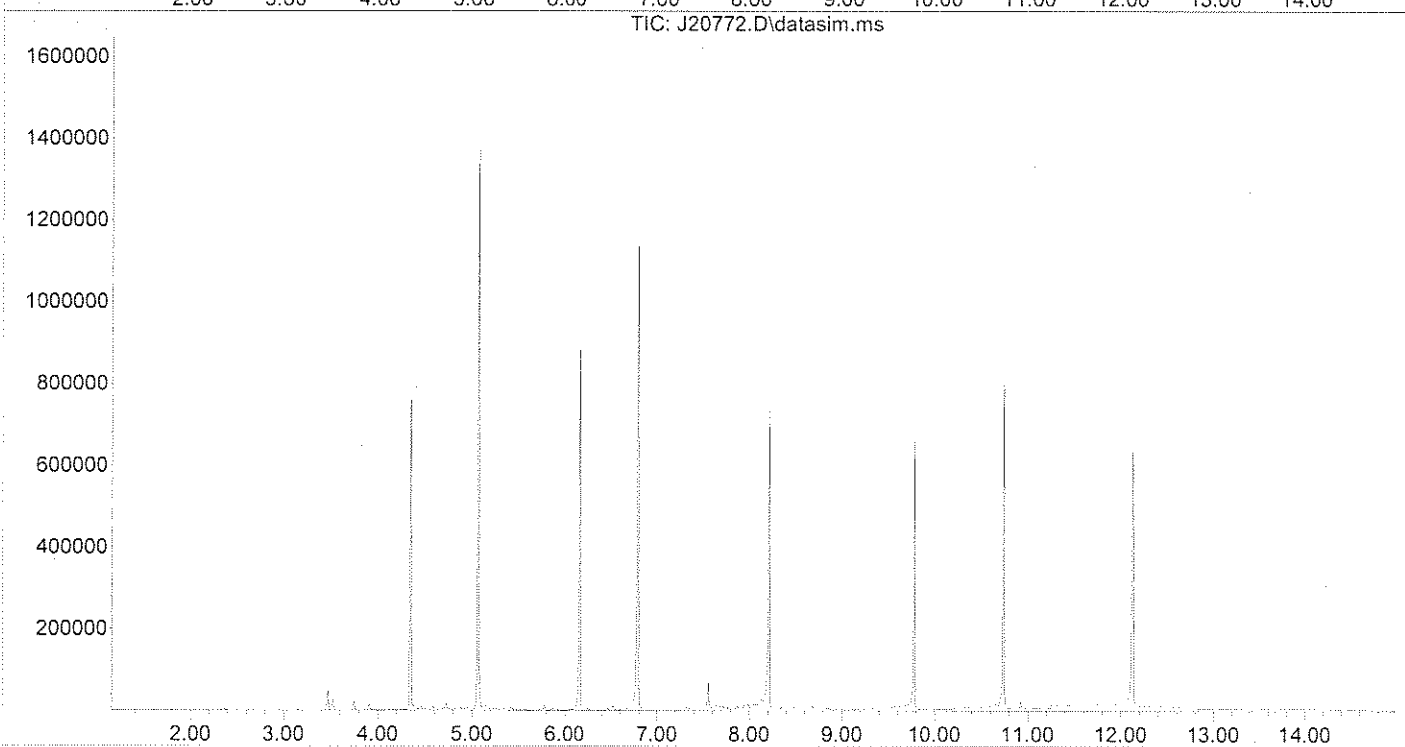
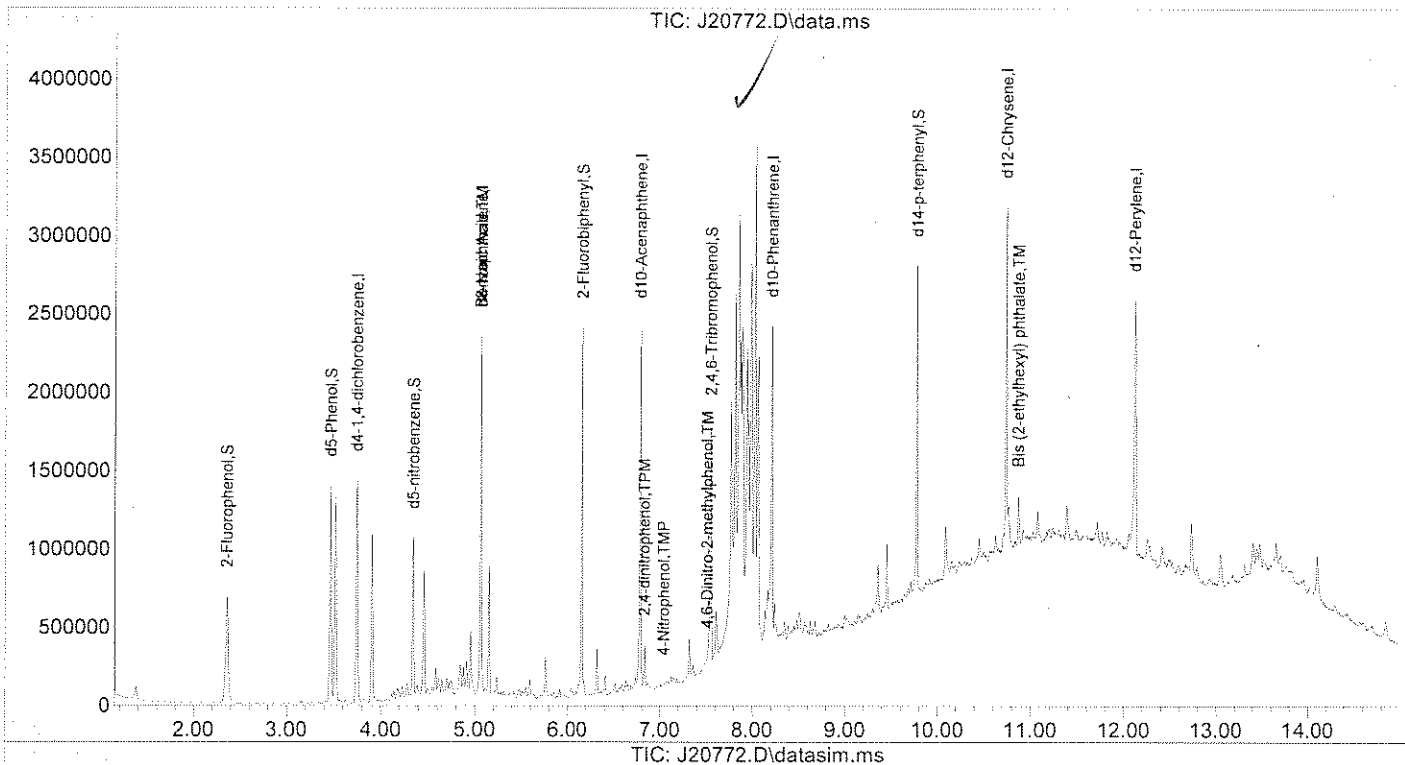
**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8270C.

**COMMENTS:** \*Due to the reactive nature of this compound, the Benzidine quantitation limit is estimated. Analytics is not NELAC certified for Benzidine in RCRA aqueous samples.  
Results are expressed on a dry weight basis.



Data Path : C:\msdchem\1\DATA\102108-J\  
Data File : J20772.D  
Acq On : 22 Oct 2008 3:50 am  
Operator :  
Sample : 62501-2  
Misc : SOIL  
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 22 20:10:59 2008  
Quant Method : C:\msdchem\1\METHODS\ABN09098.M  
Quant Title : ABN FULL SCAN  
QLast Update : Wed Oct 22 20:10:01 2008  
Response via : Initial Calibration



Mr. Herb Kodis  
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October 28, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** SME 734-08  
**Project Number:**  
**Field Sample ID:** Bldg 10 Cistern

**Lab Sample ID:** 62501-3  
**Matrix:** Aqueous  
**Percent Solid:** N/A  
**Dilution Factor:** 1.1  
**Collection Date:** 10/16/08  
**Lab Receipt Date:** 10/20/08  
**Extraction Date:** 10/20/08  
**Analysis Date:** 10/22/08

PAGE ONE

ANALYTICAL RESULTS SEMI-VOLATILE ORGANICS					
ACID COMPOUND	Quantitation Limit µg/L	Result µg/L	ACID COMPOUND	Quantitation Limit µg/L	Result µg/L
2-Chlorophenol	5	U	Pentachlorophenol	11	U
4-Chloro-3-methylphenol	11	U	Phenol	5	U
2,4-Dichlorophenol	5	U	2,4,5-Trichlorophenol	5	U
2,4-Dimethylphenol	5	U	2,4,6-Trichlorophenol	5	U
2,4-dinitrophenol	5	U	Benzoic Acid	11	U
4,6-Dinitro-2-methylphenol	5	U	2-Methylphenol	5	U
2-Nitrophenol	5	U	3+4-Methylphenol	5	U
2,6-Dichlorophenol	5	U	Benzyl Alcohol	5	U
4-Nitrophenol	5	U	2,3,4,6-Tetrachlorophenol	5	U
Acid Surrogate Standard Recovery					
2-Fluorophenol	47 %	d5-Phenol	33 %	2,4,6-Tribromophenol	105 %
BASE NEUTRAL COMPOUND	Quantitation Limit µg/L	Result µg/L	BASE NEUTRAL COMPOUND	Quantitation Limit µg/L	Result µg/L
1,2-Dichlorobenzene	2	U	Hexachlorobenzene	2	U
1,3-Dichlorobenzene	2	U	* Benzidine	21	U
1,4-Dichlorobenzene	2	U	3,3'-Dichlorobenzidine	21	U
2,4-Dinitrotoluene	2	U	Azobenzene	2	U
2,6-Dinitrotoluene	2	U	Bis(2-chloroethoxy)methane	2	U
Nitrobenzene	2	U	bis(2-chloroethyl) ether	2	U
Hexachlorobutadiene	2	U	bis(2-chloroisopropyl)ether	2	U
Dimethyl Phthalate	2	U	4-bromophenyl phenyl ether	2	U
Di-n-butyl phthalate	2	U	Butyl benzyl phthalate	2	U
di-n-octyl-phthalate	2	U	4-Chlorophenyl phenyl ether	2	U
Bis (2-ethylhexyl) phthalate	2	2	Diethyl Phthalate	2	U
1,2,4-Trichlorobenzene	2	U	Hexachlorocyclopentadiene	2	U
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8270C.

Mr. Herb Kodis  
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October 28, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**

Project Name: SME 734-08

Project Number:

Field Sample ID: Bldg 10 Cistern

Lab Sample ID: 62501-3

Matrix: Aqueous

Percent Solid: N/A

Dilution Factor: 1.1

Collection Date: 10/16/08

Lab Receipt Date: 10/20/08

Extraction Date: 10/20/08

Analysis Date: 10/22/08

PAGE TWO

ANALYTICAL RESULTS SEMI-VOLATILE ORGANICS					
BASE NEUTRAL COMPOUND	Quantitation Limit µg/L	Result µg/L	BASE NEUTRAL COMPOUND	Quantitation Limit µg/L	Result µg/L
Acenaphthene	2	U	N-nitrosodimethylamine	2	U
Acenaphthylene	2	U	N-nitroso-di-n-propylamine	2	U
Anthracene	2	U	n-nitrosodiphenylamine	2	U
Benzo[a]anthracene	2	U	Pyridine	2	U
Benzo[a] pyrene	2	U	2-Methylnaphthalene	2	U
Benzo[b] fluoranthene	2	U	2-Chloronaphthalene	2	U
Benzo[k] fluoranthene	2	U	Naphthalene	2	U
Benzo( g,h,i) perylene	2	U	Phenanthrene	2	U
Chrysene	2	U	Dibenzofuran	2	U
Dibenz [a,h] anthracene	2	U	Aniline	2	U
Fluoranthene	2	U	4-Chloroaniline	2	U
Fluorene	2	U	2-Nitroaniline	2	U
Indeno [1,2,3-cd] pyrene	2	U	3-Nitroaniline	2	U
Pyrene	2	U	4-Nitroaniline	2	U
Hexachloroethane	2	U	Carbazole	2	U
Isophorone	2	U			
Base Neutral Surrogate Standard Recovery					
2-Fluorobiphenyl	58	%	d5-nitrobenzene	70	%
			d14-p-terphenyl	70	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

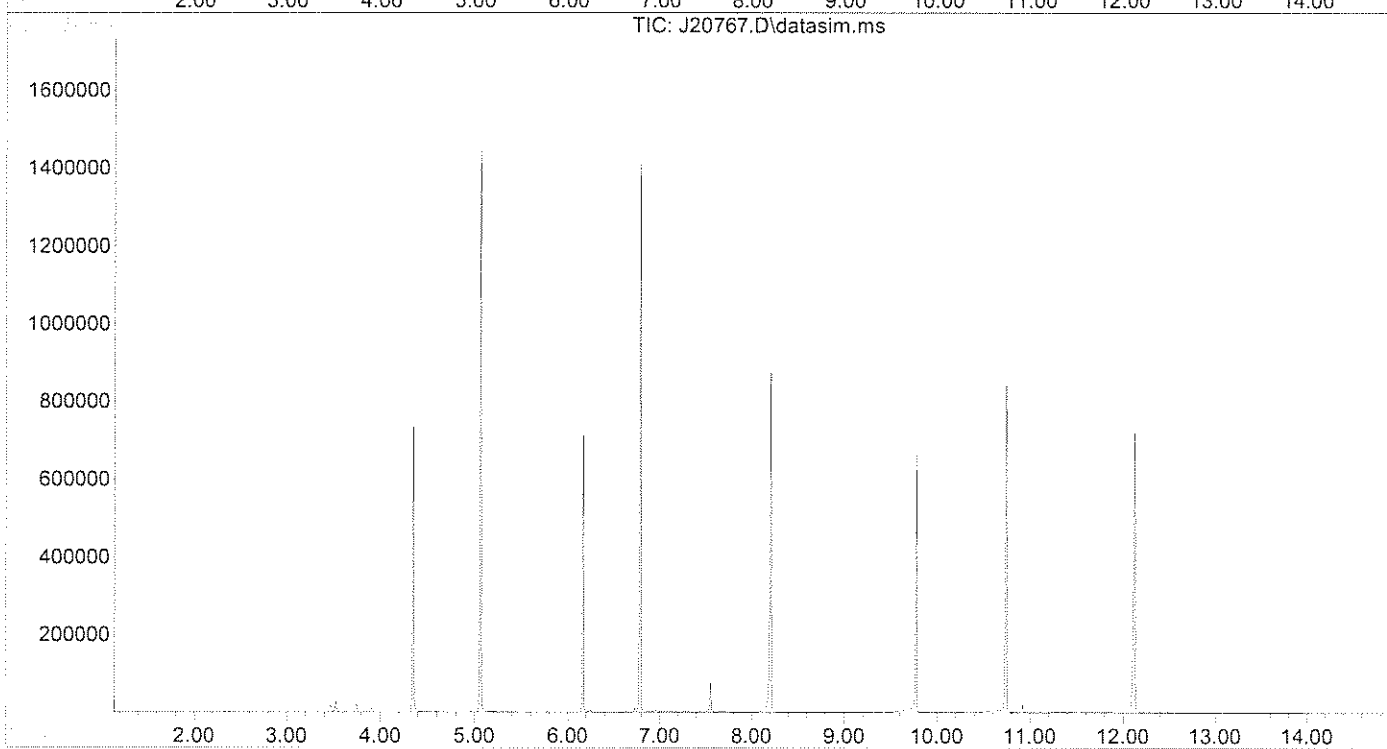
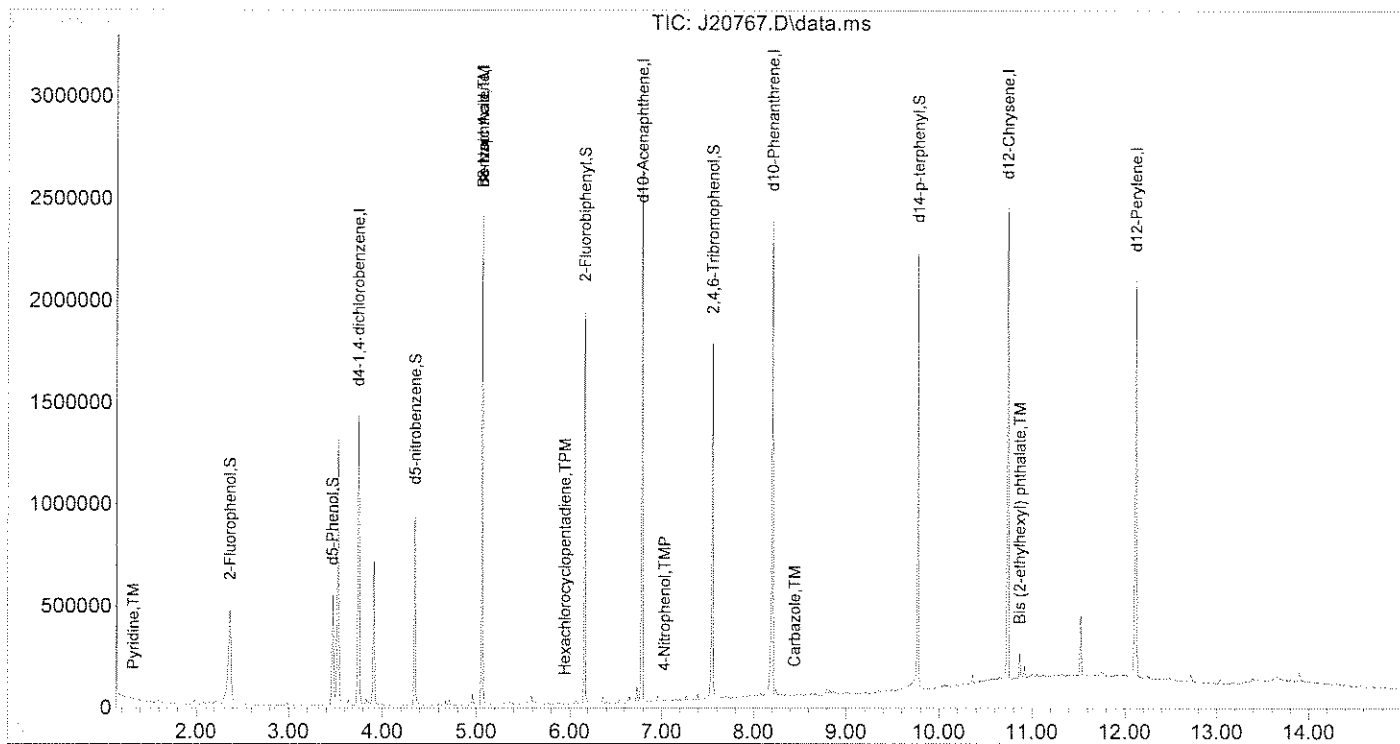
**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8270C.

**COMMENTS:** \*Due to the reactive nature of this compound, the Benzidine quantitation limit is estimated. Analytics is not NELAC certified for Benzidine in RCRA aqueous samples.



Data Path : C:\msdchem\1\DATA\102108-J\  
Data File : J20767.D  
Acq On : 22 Oct 2008 2:06 am  
Operator :  
Sample : 62501-3  
Misc :  
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 22 20:10:41 2008  
Quant Method : C:\msdchem\1\METHODS\ABN09098.M  
Quant Title : ABN FULL SCAN  
QLast Update : Wed Oct 22 20:10:01 2008  
Response via : Initial Calibration





Mr. Herb Kodis  
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PO Box 1107  
Yarmouth, ME 04096-1107

October 28, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** SME 734-08  
**Project Number:**  
**Field Sample ID:** Bldg 3

**Lab Sample ID:** 62501-4  
**Matrix:** Solid  
**Percent Solid:** 64  
**Dilution Factor:** 1.5  
**Collection Date:** 10/16/08  
**Lab Receipt Date:** 10/20/08  
**Extraction Date:** 10/21/08  
**Analysis Date:** 10/23/08

PAGE ONE

ANALYTICAL RESULTS SEMI-VOLATILE ORGANICS					
ACID COMPOUND	Quantitation Limit µg/kg	Result µg/kg	ACID COMPOUND	Quantitation Limit µg/kg	Result µg/kg
2-Chlorophenol	530	U	Pentachlorophenol	1100	U
4-Chloro-3-methylphenol	1100	U	Phenol	1100	U
2,4-Dichlorophenol	530	U	2,4,5-Trichlorophenol	760	U
2,4-Dimethylphenol	530	U	2,4,6-Trichlorophenol	530	U
2,4-dinitrophenol	1100	U	Benzoic Acid	1500	U
4,6-Dinitro-2-methylphenol	1100	U	2-Methylphenol	1100	U
2-Nitrophenol	1100	U	3+4-Methylphenol	1100	U
2,6-Dichlorophenol	760	U	Benzyl Alcohol	1100	U
4-Nitrophenol	1100	U	2,3,4,6-Tetrachlorophenol	1100	U
Acid Surrogate Standard Recovery					
2-Fluorophenol	42 %	d5-Phenol	54 %	2,4,6-Tribromophenol	77 %
BASE NEUTRAL COMPOUND	Quantitation Limit µg/kg	Result µg/kg	BASE NEUTRAL COMPOUND	Quantitation Limit µg/kg	Result µg/kg
1,2-Dichlorobenzene	760	U	Hexachlorobenzene	530	U
1,3-Dichlorobenzene	760	U	* Benzidine	760	U
1,4-Dichlorobenzene	530	U	3,3'-Dichlorobenzidine	760	U
2,4-Dinitrotoluene	530	U	Azobenzene	760	U
2,6-Dinitrotoluene	760	U	Bis(2-chloroethoxy)methane	760	U
Nitrobenzene	760	U	bis(2-chloroethyl) ether	530	U
Hexachlorobutadiene	760	U	bis(2-chloroisopropyl)ether	530	U
Dimethyl Phthalate	760	U	4-bromophenyl phenyl ether	760	U
Di-n-butyl phthalate	760	U	Butyl benzyl phthalate	760	U
di-n-octyl-phthalate	760	U	4-Chlorophenyl phenyl ether	760	U
Bis (2-ethylhexyl) phthalate	760	2950	Diethyl Phthalate	760	U
1,2,4-Trichlorobenzene	760	U	Hexachlorocyclopentadiene	760	U
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8270C.

Mr. Herb Kodis  
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October 28, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**

Project Name: SME 734-08

Project Number:

Field Sample ID: Bldg 3

Lab Sample ID: 62501-4

Matrix: Solid

Percent Solid: 64

Dilution Factor: 1.5

Collection Date: 10/16/08

Lab Receipt Date: 10/20/08

Extraction Date: 10/21/08

Analysis Date: 10/23/08

PAGE TWO

ANALYTICAL RESULTS SEMI-VOLATILE ORGANICS					
BASE NEUTRAL COMPOUND	Quantitation Limit µg/kg	Result µg/kg	BASE NEUTRAL COMPOUND	Quantitation Limit µg/kg	Result µg/kg
Acenaphthene	410	U	N-nitrosodimethylamine	760	U
Acenaphthylene	410	U	N-nitroso-di-n-propylamine	760	U
Anthracene	410	U	n-nitrosodiphenylamine	760	U
Benzo[a]anthracene	410	372 J	Pyridine	760	U
Benzo[a] pyrene	410	412	2-Methylnaphthalene	410	U
Benzo[b] fluoranthene	410	827	2-Chloronaphthalene	410	U
Benzo[k] fluoranthene	410	267 J	Naphthalene	410	U
Benzo( g,h,i) perylene	410	U	Phenanthrene	410	253 J
Chrysene	410	481	Dibenzofuran	410	U
Dibenz [a,h] anthracene	410	U	Aniline	760	U
Fluoranthene	410	636	4-Chloroaniline	760	U
Fluorene	410	U	2-Nitroaniline	760	U
Indeno [1,2,3-cd] pyrene	410	U	3-Nitroaniline	760	U
Pyrene	410	632	4-Nitroaniline	760	U
Hexachloroethane	530	U	Carbazole	410	U
Isophorone	760	U			
Base Neutral Surrogate Standard Recovery					
2-Fluorobiphenyl	64 %	d5-nitrobenzene	58 %	d14-p-terphenyl	71 %
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

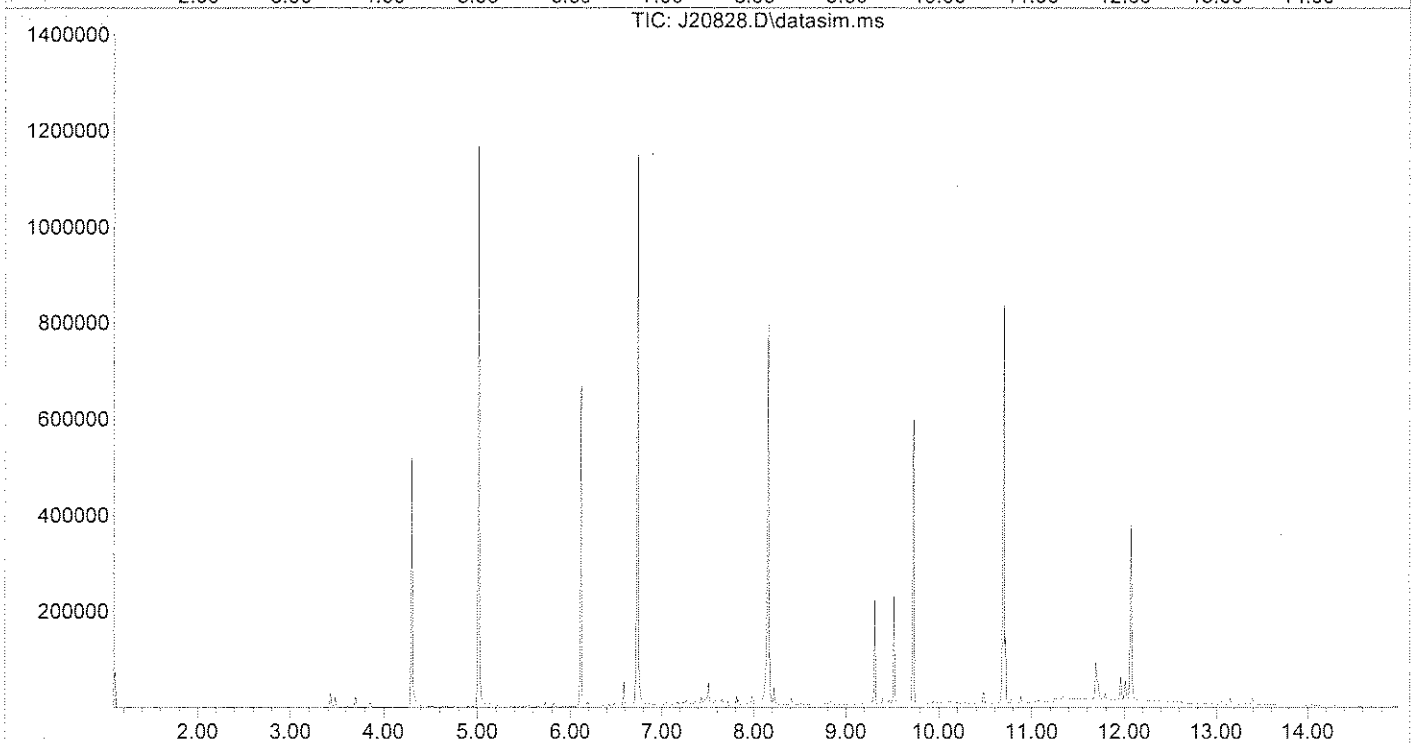
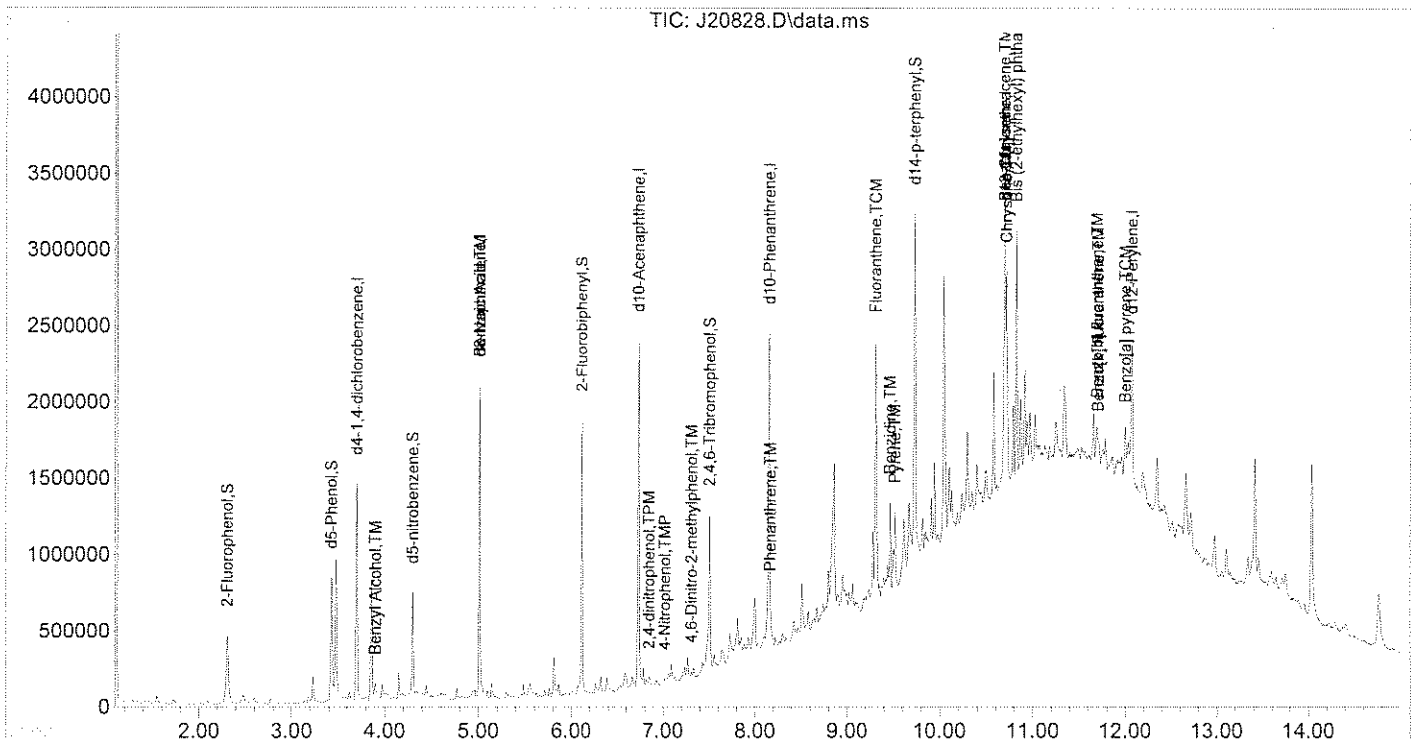
**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8270C.

**COMMENTS:** \*Due to the reactive nature of this compound, the Benzidine quantitation limit is estimated. Analytics is not NELAC certified for Benzidine in RCRA aqueous samples. Results are expressed on a dry weight basis. Sample had low recovery of internal standard d12-Perylene. Sample was reanalyzed at a dilution with acceptable results.

*M. Laball*

Data Path : C:\msdchem\1\DATA\102208-J\  
Data File : J20828.D  
Acq On : 23 Oct 2008 11:52 am  
Operator :  
Sample : 62501-4,,RR  
Misc : SOIL  
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 23 23:33:04 2008  
Quant Method : C:\msdchem\1\METHODS\ABN09098.M  
Quant Title : ABN FULL SCAN  
QLast Update : Thu Oct 23 20:59:25 2008  
Response via : Initial Calibration



Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

October 28, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** SME 734-08  
**Project Number:**  
**Field Sample ID:** Bldg 3

**Lab Sample ID:** 62501-4 DL  
**Matrix:** Solid  
**Percent Solid:** 64  
**Dilution Factor:** 3.1  
**Collection Date:** 10/16/08  
**Lab Receipt Date:** 10/20/08  
**Extraction Date:** 10/21/08  
**Analysis Date:** 10/22/08

PAGE ONE

ANALYTICAL RESULTS SEMI-VOLATILE ORGANICS					
ACID COMPOUND	Quantitation Limit µg/kg	Result µg/kg	ACID COMPOUND	Quantitation Limit µg/kg	Result µg/kg
2-Chlorophenol	1100	U	Pentachlorophenol	2100	U
4-Chloro-3-methylphenol	2100	U	Phenol	2100	U
2,4-Dichlorophenol	1100	U	2,4,5-Trichlorophenol	1500	U
2,4-Dimethylphenol	1100	U	2,4,6-Trichlorophenol	1100	U
2,4-dinitrophenol	2100	U	Benzoic Acid	3100	U
4,6-Dinitro-2-methylphenol	2100	U	2-Methylphenol	2100	U
2-Nitrophenol	2100	U	3+4-Methylphenol	2100	U
2,6-Dichlorophenol	1500	U	Benzyl Alcohol	2100	U
4-Nitrophenol	2100	U	2,3,4,6-Tetrachlorophenol	2100	U
Acid Surrogate Standard Recovery					
2-Fluorophenol	41 %	d5-Phenol	54 %	2,4,6-Tribromophenol	79 %
BASE NEUTRAL COMPOUND	Quantitation Limit µg/kg	Result µg/kg	BASE NEUTRAL COMPOUND	Quantitation Limit µg/kg	Result µg/kg
1,2-Dichlorobenzene	1500	U	Hexachlorobenzene	1100	U
1,3-Dichlorobenzene	1500	U	* Benzidine	1500	U
1,4-Dichlorobenzene	1100	U	3,3'-Dichlorobenzidine	1500	U
2,4-Dinitrotoluene	1100	U	Azobenzene	1500	U
2,6-Dinitrotoluene	1500	U	Bis(2-chloroethoxy)methane	1500	U
Nitrobenzene	1500	U	bis(2-chloroethyl) ether	1100	U
Hexachlorobutadiene	1500	U	bis(2-chloroisopropyl)ether	1100	U
Dimethyl Phthalate	1500	U	4-bromophenyl phenyl ether	1500	U
Di-n-butyl phthalate	1500	U	Butyl benzyl phthalate	1500	U
di-n-octyl-phthalate	1500	U	4-Chlorophenyl phenyl ether	1500	U
Bis (2-ethylhexyl) phthalate	1500	2710	Diethyl Phthalate	1500	U
1,2,4-Trichlorobenzene	1500	U	Hexachlorocyclopentadiene	1500	U
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8270C.

Mr. Herb Kodis  
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October 28, 2008

**SAMPLE DATA**

**Lab Sample ID:** 62501-4 DL  
**Matrix:** Solid  
**Percent Solid:** 64  
**Dilution Factor:** 3.1  
**Collection Date:** 10/16/08  
**Lab Receipt Date:** 10/20/08  
**Extraction Date:** 10/21/08  
**Analysis Date:** 10/22/08

**CLIENT SAMPLE ID**

**Project Name:** SME 734-08

**Project Number:**

**Field Sample ID:** Bldg 3

PAGE TWO

ANALYTICAL RESULTS SEMI-VOLATILE ORGANICS					
BASE NEUTRAL COMPOUND	Quantitation Limit µg/kg	Result µg/kg	BASE NEUTRAL COMPOUND	Quantitation Limit µg/kg	Result µg/kg
Acenaphthene	810	U	N-nitrosodimethylamine	1500	U
Acenaphthylene	810	U	N-nitroso-di-n-propylamine	1500	U
Anthracene	810	U	n-nitrosodiphenylamine	1500	U
Benzo[a]anthracene	810	U	Pyridine	1500	U
Benzo[a] pyrene	810	U	2-Methylnaphthalene	810	U
Benzo[b] fluoranthene	810	741 J	2-Chloronaphthalene	810	U
Benzo[k] fluoranthene	810	U	Naphthalene	810	U
Benzo( g,h,i) perylene	810	U	Phenanthrene	810	U
Chrysene	810	479 J	Dibenzofuran	810	U
Dibenz [a,h] anthracene	810	U	Aniline	1500	U
Fluoranthene	810	589 J	4-Chloroaniline	1500	U
Fluorene	810	U	2-Nitroaniline	1500	U
Indeno [1,2,3-cd] pyrene	810	U	3-Nitroaniline	1500	U
Pyrene	810	539 J	4-Nitroaniline	1500	U
Hexachloroethane	1100	U	Carbazole	810	U
Isophorone	1500	U			
Base Neutral Surrogate Standard Recovery					
2-Fluorobiphenyl	63 %		d5-nitrobenzene	60 %	
			d14-p-terphenyl	59 %	
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

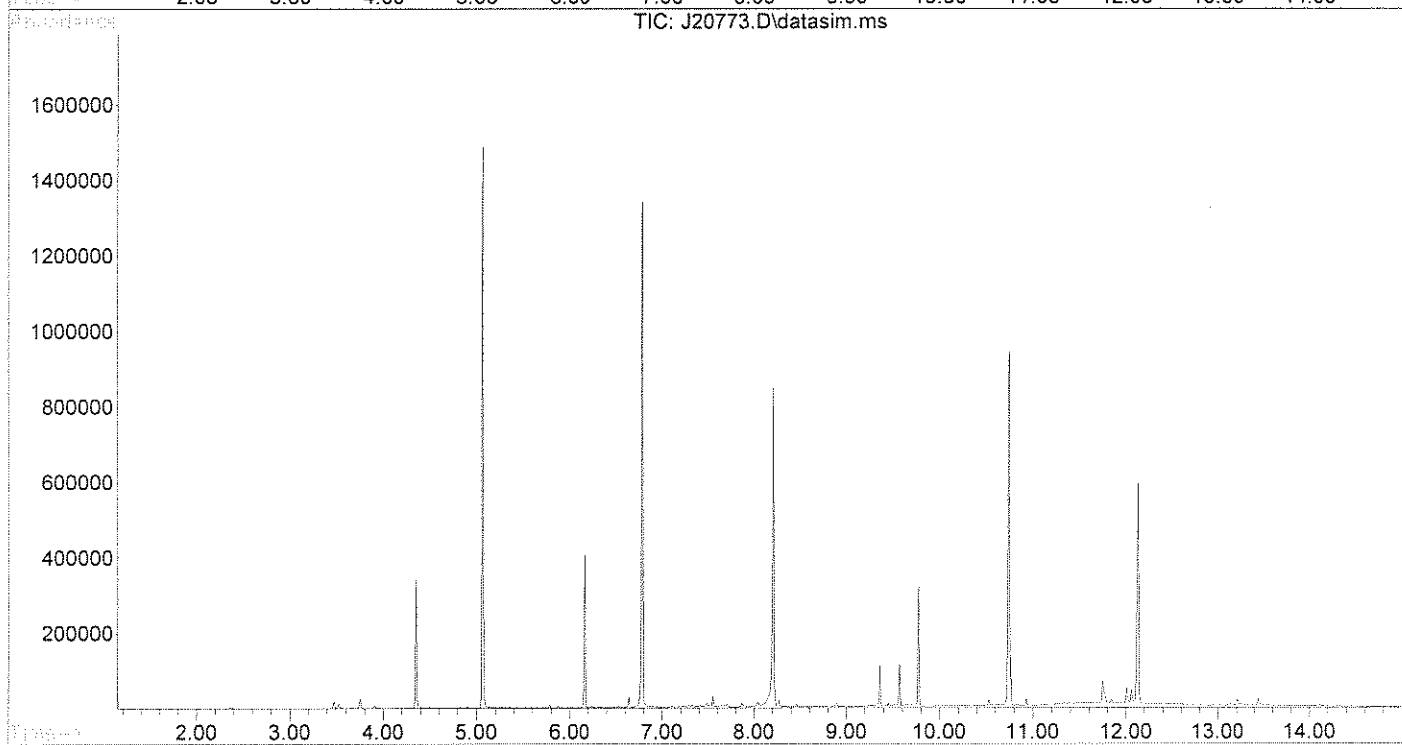
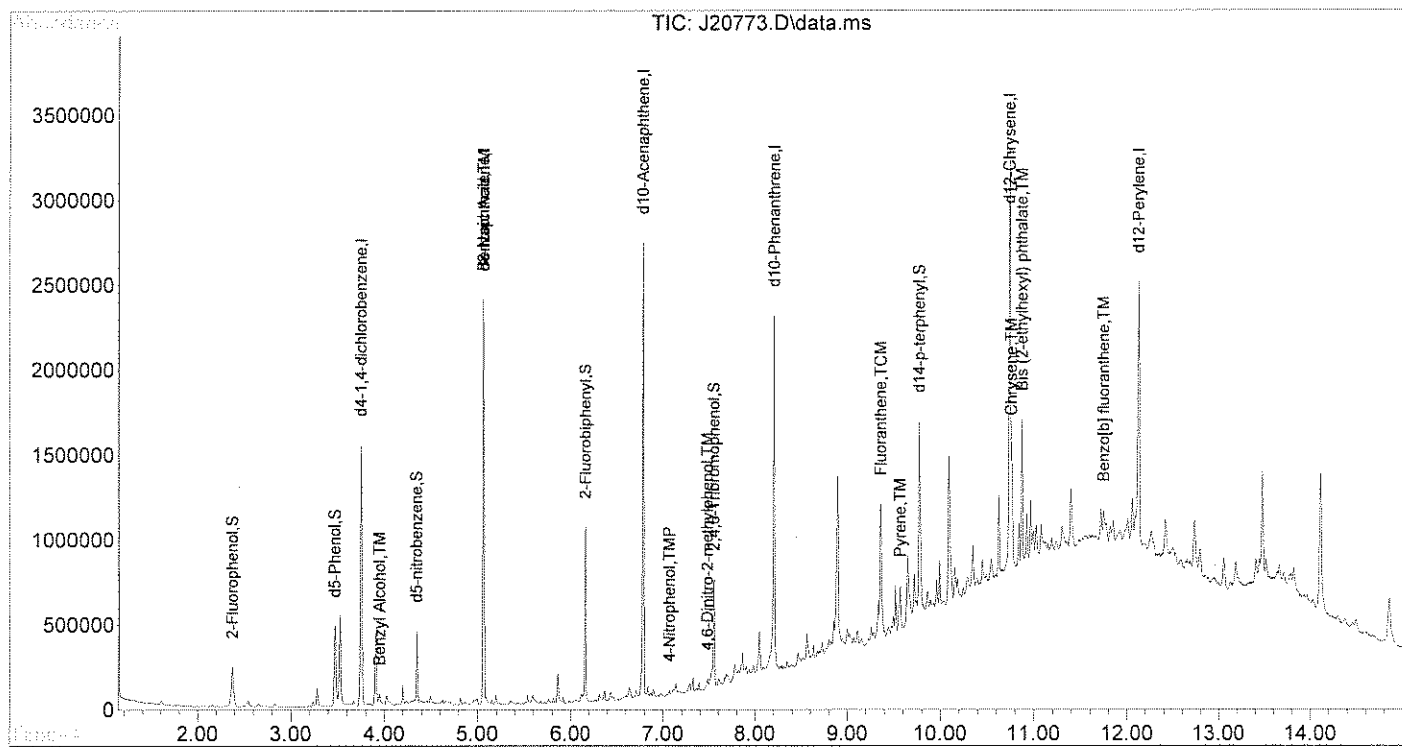
**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8270C.

**COMMENTS:** \*Due to the reactive nature of this compound, the Benzidine quantitation limit is estimated. Analytics is not NELAC certified for Benzidine in RCRA aqueous samples.  
Results are expressed on a dry weight basis.

*[Signature]*

Data Path : C:\msdchem\1\DATA\102108-J\  
Data File : J20773.D  
Acq On : 22 Oct 2008 4:11 am  
Operator :  
Sample : 62501-4,DL,1:2 (Sig #1); 62501-4,,1:2 (Sig #2)  
Misc : SOIL  
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 25 02:21:14 2008  
Quant Method : C:\msdchem\1\METHODS\ABN09098.M  
Quant Title : ABN FULL SCAN  
QLast Update : Sat Oct 25 02:19:57 2008  
Response via : Initial Calibration



Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

October 28, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** SME 734-08  
**Project Number:**  
**Field Sample ID:** SAND-01

**Lab Sample ID:** 62501-5  
**Matrix:** Solid  
**Percent Solid:** 99  
**Dilution Factor:** 1.0  
**Collection Date:** 10/16/08  
**Lab Receipt Date:** 10/20/08  
**Extraction Date:** 10/21/08  
**Analysis Date:** 10/22/08

PAGE ONE

ANALYTICAL RESULTS SEMI-VOLATILE ORGANICS					
ACID COMPOUND	Quantitation Limit µg/kg	Result µg/kg	ACID COMPOUND	Quantitation Limit µg/kg	Result µg/kg
2-Chlorophenol	340	U	Pentachlorophenol	680	U
4-Chloro-3-methylphenol	680	U	Phenol	680	U
2,4-Dichlorophenol	340	U	2,4,5-Trichlorophenol	490	U
2,4-Dimethylphenol	340	U	2,4,6-Trichlorophenol	340	U
2,4-dinitrophenol	680	U	Benzoic Acid	980	U
4,6-Dinitro-2-methylphenol	680	U	2-Methylphenol	680	U
2-Nitrophenol	680	U	3+4-Methylphenol	680	U
2,6-Dichlorophenol	490	U	Benzyl Alcohol	680	U
4-Nitrophenol	680	U	2,3,4,6-Tetrachlorophenol	680	U
Acid Surrogate Standard Recovery					
2-Fluorophenol	63 %	d5-Phenol	69 %	2,4,6-Tribromophenol	107 %
BASE NEUTRAL COMPOUND	Quantitation Limit µg/kg	Result µg/kg	BASE NEUTRAL COMPOUND	Quantitation Limit µg/kg	Result µg/kg
1,2-Dichlorobenzene	490	U	Hexachlorobenzene	340	U
1,3-Dichlorobenzene	490	U	* Benzidine	490	U
1,4-Dichlorobenzene	340	U	3,3'-Dichlorobenzidine	490	U
2,4-Dinitrotoluene	340	U	Azobenzene	490	U
2,6-Dinitrotoluene	490	U	Bis(2-chloroethoxy)methane	490	U
Nitrobenzene	490	U	bis(2-chloroethyl) ether	340	U
Hexachlorobutadiene	490	U	bis(2-chloroisopropyl) ether	340	U
Dimethyl Phthalate	490	U	4-bromophenyl phenyl ether	490	U
Di-n-butyl phthalate	490	U	Butyl benzyl phthalate	490	U
di-n-octyl-phthalate	490	U	4-Chlorophenyl phenyl ether	490	U
Bis (2-ethylhexyl) phthalate	490	U	Diethyl Phthalate	490	U
1,2,4-Trichlorobenzene	490	U	Hexachlorocyclopentadiene	490	U
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8270C.

Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

October 28, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** SME 734-08

**Project Number:**

**Field Sample ID:** SAND-01

**Lab Sample ID:** 62501-5

**Matrix:** Solid

**Percent Solid:** 99

**Dilution Factor:** 1.0

**Collection Date:** 10/16/08

**Lab Receipt Date:** 10/20/08

**Extraction Date:** 10/21/08

**Analysis Date:** 10/22/08

PAGE TWO

ANALYTICAL RESULTS SEMI-VOLATILE ORGANICS					
BASE NEUTRAL COMPOUND	Quantitation Limit µg/kg	Result µg/kg	BASE NEUTRAL COMPOUND	Quantitation Limit µg/kg	Result µg/kg
Acenaphthene	260	U	N-nitrosodimethylamine	490	U
Acenaphthylene	260	U	N-nitroso-di-n-propylamine	490	U
Anthracene	260	U	n-nitrosodiphenylamine	490	U
Benzo[a]anthracene	260	U	Pyridine	490	U
Benzo[a] pyrene	260	U	2-Methylnaphthalene	260	U
Benzo[b] fluoranthene	260	U	2-Chloronaphthalene	260	U
Benzo[k] fluoranthene	260	U	Naphthalene	260	U
Benzo(g,h,i) perylene	260	U	Phenanthrene	260	U
Chrysene	260	U	Dibenzofuran	260	U
Dibenz [a,h] anthracene	260	U	Aniline	490	U
Fluoranthene	260	U	4-Chloroaniline	490	U
Fluorene	260	U	2-Nitroaniline	490	U
Indeno [1,2,3-cd] pyrene	260	U	3-Nitroaniline	490	U
Pyrene	260	U	4-Nitroaniline	490	U
Hexachloroethane	340	U	Carbazole	260	U
Isophorone	490	U			
Base Neutral Surrogate Standard Recovery					
2-Fluorobiphenyl	72 %		d5-nitrobenzene	70 %	
					d14-p-terphenyl 92 %
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

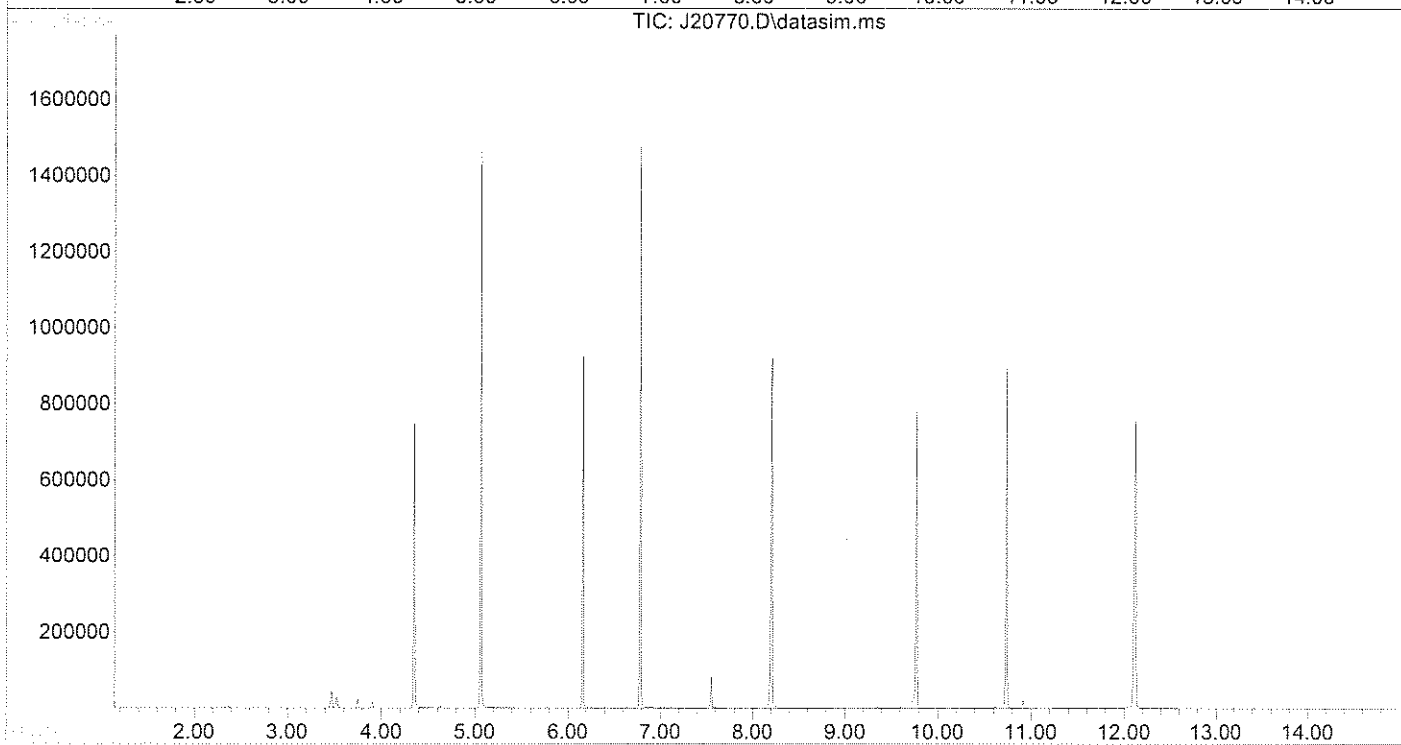
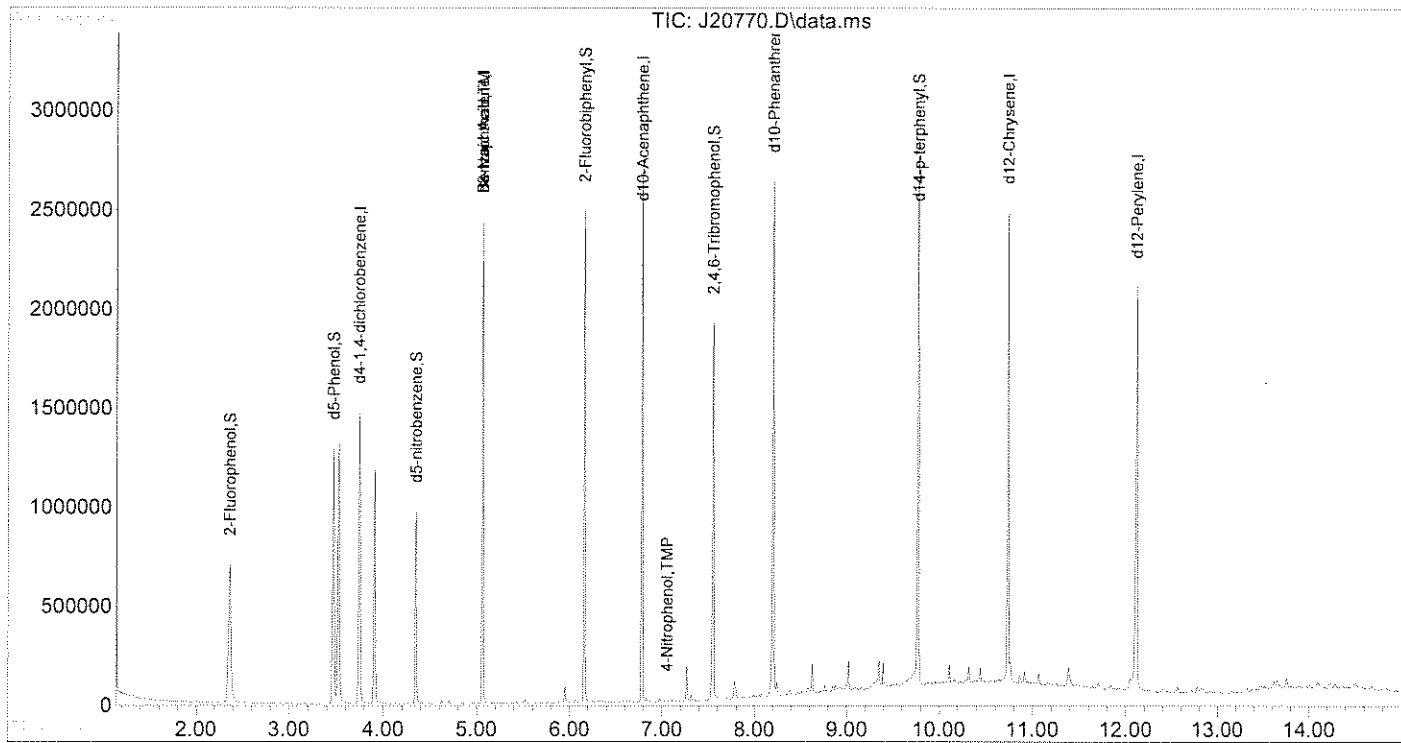
**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8270C.

**COMMENTS:** \*Due to the reactive nature of this compound, the Benzidine quantitation limit is estimated. Analytics is not NELAC certified for Benzidine in RCRA aqueous samples.  
Results are expressed on a dry weight basis.



Data Path : C:\msdchem\1\DATA\102108-J\  
Data File : J20770.D  
Acq On : 22 Oct 2008 3:08 am  
Operator :  
Sample : 62501-5  
Misc : SOIL  
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 22 20:10:52 2008  
Quant Method : C:\msdchem\1\METHODS\ABN09098.M  
Quant Title : ABN FULL SCAN  
QLast Update : Wed Oct 22 20:10:01 2008  
Response via : Initial Calibration



## SEMI-VOLATILE QC FORMS

SEMIVOLATILE ORGANIC AQUEOUS  
LABORATORY CONTROL SAMPLE  
LABORATORY CONTROL SAMPLE DUPLICATE  
PERCENT RECOVERY

Instrument ID: J

GC Column: ZB-5ms

Column ID: 0.25 mm

SDG: 62501

Non-spiked sample: B10208AW

Spike: L10208AW

Spike duplicate: LD10208AW

COMPOUND	SPIKE ADDED	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
Pyridine	40	30	65	25	0.0	18	45		17	42		7	
N-nitrosodimethylamine	40	25	110	25	0.0	18	45		17	42		9	
Aniline	40	40	140	25	0.0	29	73		28	71		3	
Phenol	80	30	115	42	0.0	29	36		28	34		5	
2-Chlorophenol	80	35	105	40	0.0	56	71		55	68		4	
bis(2-chloroethyl) ether	40	35	110	25	0.0	39	97		38	95		2	
1,3-Dichlorobenzene	40	40	100	25	0.0	21	52		22	55		6	
1,4-Dichlorobenzene	40	40	100	28	0.0	21	52		22	55		5	
1,2-Dichlorobenzene	40	40	100	25	0.0	22	56		23	58		4	
Benzyl Alcohol	40	30	110	25	0.0	29	72		27	66		9	
2-Methylphenol	80	40	110	25	0.0	55	68		53	66		3	
bis(2-chloroisopropyl)ether	40	40	130	25	0.0	33	82		31	77		6	
3+4-Methylphenol	80	30	110	25	0.0	52	65		50	63		3	
Hexachloroethane	40	40	95	25	0.0	20	51		22	56		10	
N-nitroso-di-n-propylamine	40	65	130	38	0.0	37	92		34	86		7	
Nitrobenzene	40	45	100	25	0.0	32	80		29	73		8	
Isophorone	40	50	110	25	0.0	41	102		38	95		8	
2-Nitrophenol	80	40	115	25	0.0	64	80		60	75		6	
2,4-Dimethylphenol	80	30	110	25	0.0	61	76		58	73		5	
Bis(2-chloroethoxy)methane	40	45	105	25	0.0	35	89		33	83		6	
2,4-Dichlorophenol	80	50	105	25	0.0	64	80		61	76		5	
Benzoic Acid	80	10	125	25	0.0	27	34		25	32		7	
1,2,4-Trichlorobenzene	40	35	105	28	0.0	25	63		26	64		1	
Naphthalene	40	40	100	25	0.0	27	68		27	67		2	
4-Chloroaniline	40	40	110	25	0.0	35	87		33	82		7	
Hexachlorobutadiene	40	30	105	25	0.0	22	55		24	61		10	
4-Chloro-3-methylphenol	80	45	110	42	0.0	65	81		62	78		4	
2-Methylnaphthalene	40	45	105	25	0.0	32	80		30	76		6	
Hexachlorocyclopentadiene	40	60	110	25	0.0	27	67		27	68		2	
2,4,6-Trichlorophenol	80	50	115	25	0.0	63	78		59	74		6	
2,4,5-Trichlorophenol	80	50	110	25	0.0	71	88		66	83		7	
2-Chloronaphthalene	40	50	105	25	0.0	32	79		30	75		6	
2-Nitroaniline	40	50	115	25	0.0	39	98		37	93		6	
2,6-Dinitrotoluene	40	50	115	25	0.0	39	97		34	85		13	
Dimethyl Phthalate	40	40	125	25	0.0	32	79		34	84		7	
Acenaphthylene	40	50	105	25	0.0	35	87		33	82		6	
3-Nitroaniline	40	20	125	25	0.0	38	96		36	91		5	
Acenaphthene	40	45	110	31	0.0	33	83		31	78		6	
2,4-dinitrophenol	80	30	140	25	0.0	74	92		73	91		1	
Dibenzofuran	40	55	105	25	0.0	35	87		33	82		6	
4-Nitrophenol	80	30	125	50	0.0	31	38		29	36		7	
2,4-Dinitrotoluene	40	50	120	38	0.0	39	98		37	92		6	
Fluorene	40	50	110	25	0.0	35	87		33	83		5	
Diethyl Phthalate	40	40	120	25	0.0	36	90		37	92		2	
4-Chlorophenyl phenyl ether	40	50	110	25	0.0	35	86		33	81		6	
4-Nitroaniline	40	35	120	25	0.0	44	111		41	103		7	
4,6-Dinitro-2-methylphenol	80	40	130	25	0.0	67	84		64	81		4	

SEMIVOLATILE ORGANIC AQUEOUS  
LABORATORY CONTROL SAMPLE  
LABORATORY CONTROL SAMPLE DUPLICATE  
PERCENT RECOVERY

Instrument ID: J

GC Column: ZB-5ms

Column ID: 0.25 mm

SDG: 62501

Non-spiked sample: B10208AW

Spike: L10208AW

Spike duplicate: LD10208AW

COMPOUND	SPIKE ADDED	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
n-nitrosodiphenylamine	40	50	110	25	0.0	36	89		34	85		5	
Azobenzene	40	55	115	25	0.0	40	100		38	94		6	
Biphenyl	40	35	100	25	0.0	32	79		30	75		6	
4-bromophenyl phenyl ether	40	50	115	25	0.0	35	87		34	86		0	
Hexachlorobenzene	40	50	110	25	0.0	38	94		36	89		5	
Pentachlorophenol	80	40	115	50	0.0	56	71		54	68		4	
Phenanthrene	40	50	115	25	0.0	37	92		35	88		4	
Anthracene	40	55	110	25	0.0	35	87		33	83		5	
Carbazole	80	50	115	25	0.0	81	101		79	99		2	
Di-n-butyl phthalate	40	55	115	25	0.0	35	88		34	85		5	
Fluoranthene	40	55	115	25	0.0	36	89		34	84		6	
Benzidine	80	10	200	25	0.0	1	2	*	1	1	*	57	*
Pyrene	40	50	130	31	0.0	34	85		32	81		5	
Butyl benzyl phthalate	40	45	115	25	0.0	36	89		34	85		5	
Benzo[a]anthracene	40	55	110	25	0.0	34	84		33	82		3	
Chrysene	40	55	110	25	0.0	37	93		35	89		5	
3,3'-Dichlorobenzidine	80	40	110	25	0.0	73	91		69	87		5	
Bis (2-ethylhexyl) phthalate	40	40	125	25	0.0	37	93		36	89		4	
di-n-octyl-phthalate	40	40	135	25	0.0	37	93		36	89		3	
Benzo[b] fluoranthene	40	45	120	25	0.0	39	97		37	93		4	
Benzo[k] fluoranthene	40	45	125	25	0.0	36	91		35	87		4	
Benzo[a] pyrene	40	55	110	25	0.0	35	88		33	84		5	
Indeno [1,2,3-cd] pyrene	40	45	125	25	0.0	36	90		34	85		6	
Dibenz [a,h] anthracene	40	40	125	25	0.0	36	90		34	85		6	
Benzo( g,h,i) perylene	40	40	125	25	0.0	37	92		35	87		6	

# Column to be used to flag recovery and RPD values outside of QC limits

\* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery

Comments: \_\_\_\_\_

SEMIVOLATILE ORGANIC SOIL  
LABORATORY CONTROL/LABORATORY CONTROL DUPLICATE  
PERCENT RECOVERY

Instrument ID: J  
GC Column: ZB-5ms  
Column ID: 0.25 mm

SDG: 62501  
Non-spiked sample: B10218AASE  
Spike: L10218AASE  
Spike duplicate: LD10218AASE

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
Pyridine	2667	2667	13	77	25	0	1457	55		1593	60		9	
N-nitrosodimethylamine	2667	2667	20	115	25	0	1442	54		1590	60		10	
Aniline	2667	2667	60	120	25	0	1715	64		1820	68		6	
Phenol	5333	5333	40	100	25	0	3655	69		3894	73		6	
2-Chlorophenol	5333	5333	45	110	25	0	3467	65		3696	69		6	
bis(2-chloroethyl) ether	2667	2667	40	105	25	0	2153	81		2243	84		4	
1,3-Dichlorobenzene	2667	2667	40	100	25	0	1661	62		1764	66		6	
1,4-Dichlorobenzene	2667	2667	35	105	25	0	1629	61		1744	65		7	
1,2-Dichlorobenzene	2667	2667	45	95	25	0	1689	63		1795	67		6	
Benzyl Alcohol	2667	2667	20	125	25	0	1962	74		2046	77		4	
2-Methylphenol	5333	5333	40	105	25	0	3837	72		4097	77		7	
bis(2-chloroisopropyl) ether	2667	2667	20	115	25	0	1930	72		2036	76		5	
3+4-Methylphenol	5333	5333	40	105	25	0	4038	76		4241	80		5	
Hexachloroethane	2667	2667	35	110	25	0	1719	64		1831	69		6	
N-nitroso-di-n-propylamine	2667	2667	40	115	25	0	2228	84		2328	87		4	
Nitrobenzene	2667	2667	40	115	25	0	1872	70		2038	76		9	
Isophorone	2667	2667	45	110	25	0	2596	97		2797	105		7	
2-Nitrophenol	5333	5333	40	110	25	0	3816	72		4105	77		7	
2,4-Dimethylphenol	5333	5333	30	105	25	0	4143	78		4412	83		6	
Bis(2-chloroethoxy)methane	2667	2667	45	110	25	0	2088	78		2237	84		7	
2,4-Dichlorophenol	5333	5333	45	110	25	0	4061	76		4365	82		7	
Benzoic Acid	5333	5333	30	150	25	0	3153	59		2961	56		6	
1,2,4-Trichlorobenzene	2667	2667	45	110	25	0	1866	70		2005	75		7	
Naphthalene	2667	2667	40	105	25	0	1844	69		1968	74		6	
4-Chloroaniline	2667	2667	60	120	25	0	2097	79		2239	84		7	
Hexachlorobutadiene	2667	2667	40	115	25	0	1840	69		1981	74		7	
4-Chloro-3-methylphenol	5333	5333	45	115	25	0	4574	86		4909	92		7	
2-Methylnaphthalene	2667	2667	45	105	25	0	2019	76		2146	80		6	
Hexachlorocyclopentadiene	2667	2667	36	97	25	0	2032	76		2200	83		8	
2,4,6-Trichlorophenol	5333	5333	45	110	25	0	4269	80		4597	86		7	
2,4,5-Trichlorophenol	5333	5333	50	110	25	0	4963	93		5265	99		6	
2-Chloronaphthalene	2667	2667	45	105	25	0	2150	81		2309	87		7	
2-Nitroaniline	2667	2667	45	120	25	0	2535	95		2769	104		9	
2,6-Dinitrotoluene	2667	2667	50	110	25	0	2369	89		2744	103		15	
Dimethyl Phthalate	2667	2667	50	110	25	0	2367	89		2562	96		8	
Acenaphthylene	2667	2667	45	105	25	0	2311	87		2504	94		8	
3-Nitroaniline	2667	2667	25	110	25	0	2515	94		2793	105		10	
Acenaphthene	2667	2667	45	110	25	0	2215	83		2385	89		7	
2,4-dinitrophenol	5333	5333	15	130	25	0	4663	87		4969	93		6	
Dibenzofuran	2667	2667	50	105	25	0	2282	86		2440	92		7	
4-Nitrophenol	5333	5333	15	140	25	0	4389	82		4849	91		10	
2,4-Dinitrotoluene	2667	2667	50	115	25	0	2562	96		2781	104		8	
Fluorene	2667	2667	50	110	25	0	2336	88		2502	94		7	
Diethyl Phthalate	2667	2667	50	115	25	0	2528	95		2679	100		6	
4-Chlorophenyl phenyl ether	2667	2667	45	110	25	0	2316	87		2463	92		6	
4-Nitroaniline	2667	2667	35	115	25	0	2955	111		3240	122	*	9	
4,6-Dinitro-2-methylphenol	5333	5333	30	135	25	0	4575	86		4908	92		7	
n-nitrosodiphenylamine	2667	2667	50	115	25	0	2379	89		2600	97		9	
Azobenzene	2667	2667	63	115	25	0	3037	114		3200	120	*	5	
Biphenyl	2667	2667	60	140	25	0	2130	80		2283	86		7	
4-bromophenyl phenyl ether	2667	2667	45	115	25	0	2366	89		2560	96		8	
Hexachlorobenzene	2667	2667	45	120	25	0	2535	95		2753	103		8	
Pentachlorophenol	5333	5333	20	120	25	0	3846	72		4320	81		12	
Phenanthrene	2667	2667	50	110	25	0	2432	91		2648	99		9	

SEMIVOLATILE ORGANIC SOIL  
LABORATORY CONTROL/LABORATORY CONTROL DUPLICATE  
PERCENT RECOVERY

Instrument ID: J  
GC Column: ZB-5ms  
Column ID: 0.25 mm

SDG: 62501  
Non-spiked sample: B10218AASE  
Spike: L10218AASE  
Spike duplicate: LD10218AASE

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
Anthracene	2667	2667	55	105	25	0	2297	86		2491	93		8	
Carbazole	5333	5333	45	115	25	0	5333	100		5834	109		9	
Di-n-butyl phthalate	2667	2667	55	110	25	0	2362	89		2592	97		9	
Fluoranthene	2667	2667	55	115	25	0	2404	90		2624	98		9	
Benzidine	5333	5333	29	187	25	0	1017	19	*	2017	38		66	*
Pyrene	2667	2667	45	125	25	0	2305	86		2498	94		8	
Butyl benzyl phthalate	2667	2667	50	125	25	0	2411	90		2619	98		8	
Benzo[a]anthracene	2667	2667	50	110	25	0	2303	86		2443	92		6	
Chrysene	2667	2667	55	110	25	0	2551	96		2745	103		7	
3,3'-Dichlorobenzidine	5333	5333	64	113	25	0	4889	92		5452	102		11	
Bis (2-ethylhexyl) phthalate	2667	2667	45	125	25	0	2494	94		2717	102		9	
di-n-octyl-phthalate	2667	2667	40	130	25	0	2562	96		2738	103		7	
Benzo[b] fluoranthene	2667	2667	45	115	25	0	2558	96		2804	105		9	
Benzo[k] fluoranthene	2667	2667	45	125	25	0	2595	97		2753	103		6	
Benzo[a] pyrene	2667	2667	50	110	25	0	2435	91		2582	97		6	
Indeno [1,2,3-cd] pyrene	2667	2667	40	120	25	0	2467	93		2677	100		8	
Dibenz [a,h] anthracene	2667	2667	40	125	25	0	2451	92		2701	101		10	
Benzo( g,h,i) perylene	2667	2667	40	125	25	0	2516	94		2791	105		10	

# Column to be used to flag recovery and RPD values outside of QC limits  
\* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: \_\_\_\_\_

# DRO DATA SUMMARIES

Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

October 28, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** SME 734-08

**Project Number:**

**Field Sample ID:** LABQC

**Lab Sample ID:** B10228DW

**Matrix:** Aqueous

**Percent Solid:** N/A

**Dilution Factor:** 1

**Collection Date:** N/A

**Lab Receipt Date:** N/A

**Extraction Date:** 10/22/08

**Analysis Date:** 10/25/08

**ANALYTICAL RESULTS DIESEL RANGE ORGANICS**

Result	Units	Quantitation Limit
U	µg/L	50
<p><b>Surrogate Standard Recovery</b></p> <p>m-Terphenyl 103 %</p>		
<p>U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank</p>		

**METHODOLOGY:** Sample analyzed according to "Maine HETL Method 4.1.25, September 6, 1995".

**COMMENTS:**

DRO Report

Authorized signature

*[Signature]*



Data File : D:\TPH\102408-G\G51955B.D

Vial: 21

Acq On : 25 Oct 2008 2:43

Operator:

Sample : B10228DW

Inst : INST G

Misc :

Multiplr: 1.00

IntFile : AUTOINT1.E

Quant Time: Oct 27 7:50 2008 Quant Results File: D10108A.RES

Quant Method : C:\HPCHEM\1\METHODS\D10108A.M (Chemstation Integrator)

Title : DRO

Last Update : Mon Oct 20 11:05:13 2008

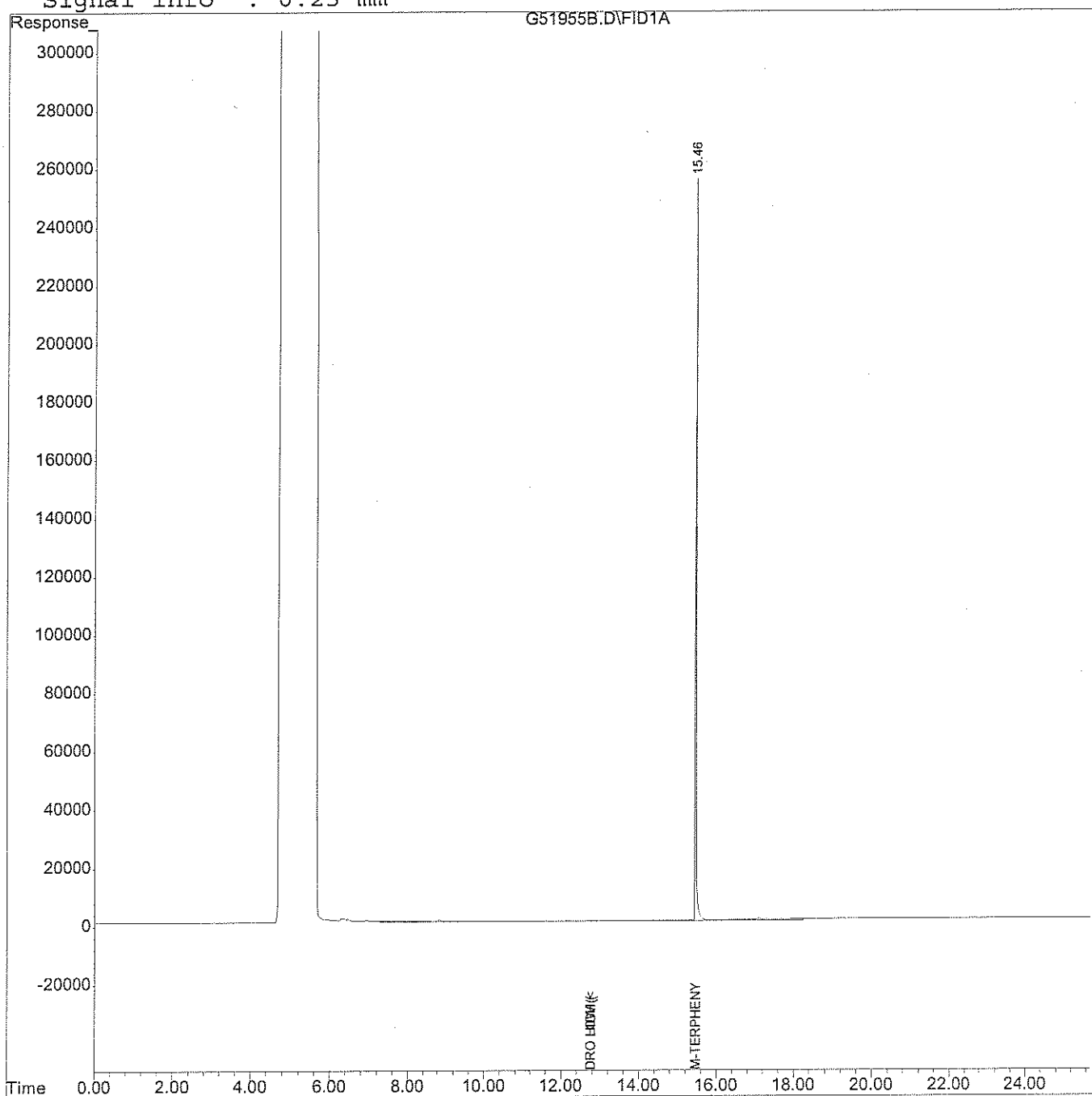
Response via : Multiple Level Calibration

DataAcq Meth : TPHEPH1.M

Volume Inj. : 1ul

Signal Phase : Rtx-5MS

Signal Info : 0.25 mm



Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

October 28, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** SME 734-08

**Project Number:**

**Field Sample ID:** LABQC

**Lab Sample ID:** B10218DAS RR  
**Matrix:** Solid  
**Percent Solid:** 100  
**Dilution Factor:** 1  
**Collection Date:** N/A  
**Lab Receipt Date:** N/A  
**Extraction Date:** 10/21/08  
**Analysis Date:** 10/25/08

**ANALYTICAL RESULTS DIESEL RANGE ORGANICS**

Result	Units	Quantitation Limit
U	mg/kg	5

**Surrogate Standard Recovery**

m-Terphenyl 104 %

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

**METHODOLOGY:** Sample analyzed according to "Maine HETL Method 4.1.25, September 6, 1995".

**COMMENTS:** Results are expressed on a dry weight basis.

Data File : D:\TPH\102408-G\G51975B.D

Vial: 40

Acq On : 25 Oct 2008 12:58

Operator:

Sample : B10218DAS, RR

Inst : INST G

Misc : SOIL

Multiplr: 1.00

IntFile : AUTOINT1.E

Quant Time: Oct 27 9:12 2008 Quant Results File: D10108A.RES

Quant Method : C:\HPCHEM\1\METHODS\D10108A.M (Chemstation Integrator)

Title : DRO

Last Update : Mon Oct 20 11:05:13 2008

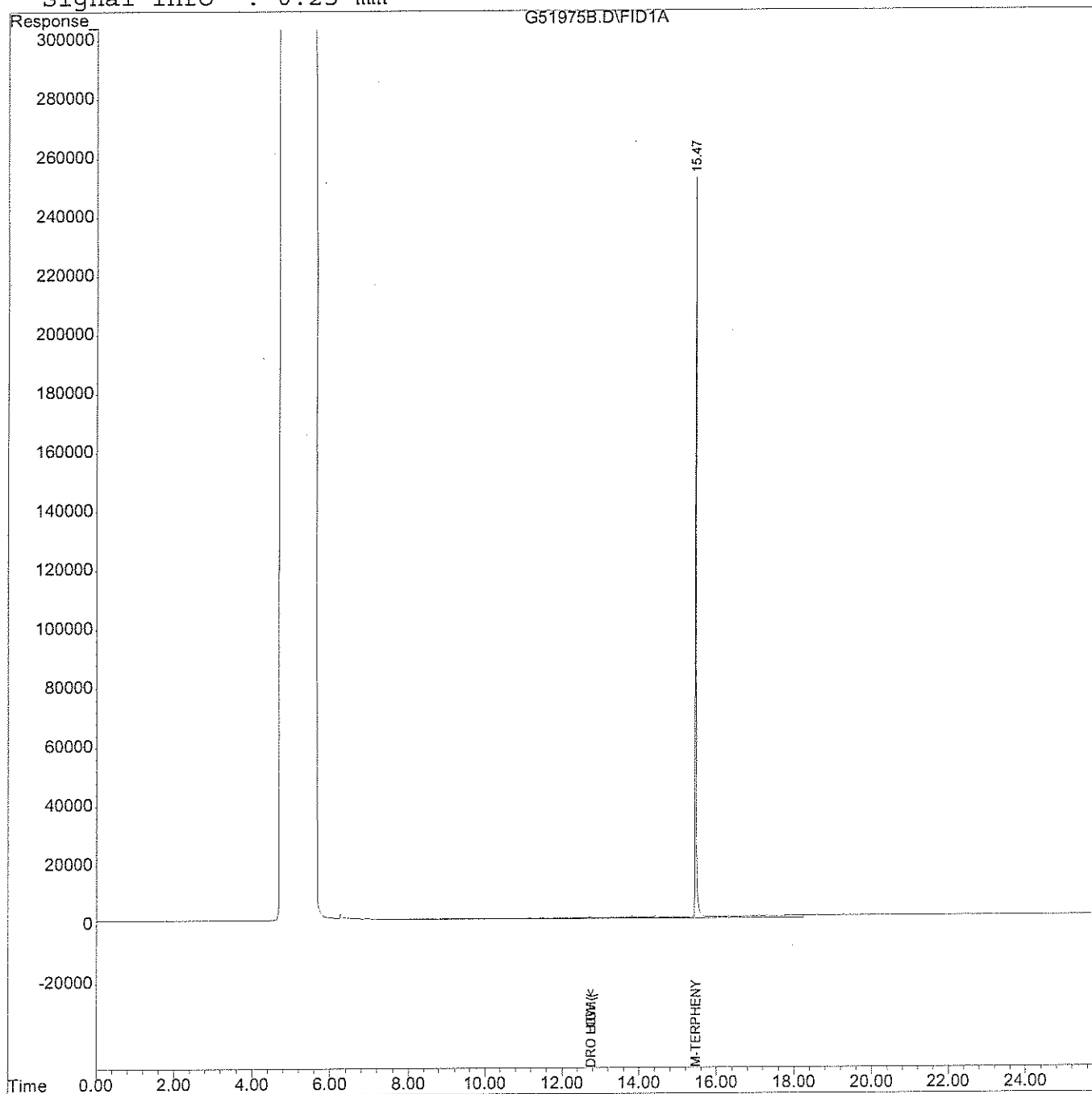
Response via : Multiple Level Calibration

DataAcq Meth : TPHEPH1.M

Volume Inj. : 1ul

Signal Phase : Rtx-5MS

Signal Info : 0.25 mm



Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

October 28, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**

Project Name: SME 734-08

Project Number:

Field Sample ID: LABQC

Lab Sample ID: B10248DAS  
Matrix: Solid  
Percent Solid: 100  
Dilution Factor: 1  
Collection Date: N/A  
Lab Receipt Date: N/A  
Extraction Date: 10/24/08  
Analysis Date: 10/25/08

**ANALYTICAL RESULTS DIESEL RANGE ORGANICS**

Result	Units	Quantitation Limit
U	mg/kg	5
<p><b>Surrogate Standard Recovery</b></p> <p>m-Terphenyl 105 %</p>		
<p>U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank</p>		

**METHODOLOGY:** Sample analyzed according to "Maine HETL Method 4.1.25, September 6, 1995".

**COMMENTS:** Results are expressed on a dry weight basis.

Data File : D:\TPH\102408-G\G51978B.D

Vial: 43

Acq On : 25 Oct 2008 14:40

Operator:

Sample : B10248DAS

Inst : INST G

Misc : SOIL

Multiplr: 1.00

IntFile : AUTOINT1.E

Quant Time: Oct 27 9:12 2008 Quant Results File: D10108A.RES

Quant Method : C:\HPCHEM\1\METHODS\D10108A.M (Chemstation Integrator)

Title : DRO

Last Update : Mon Oct 20 11:05:13 2008

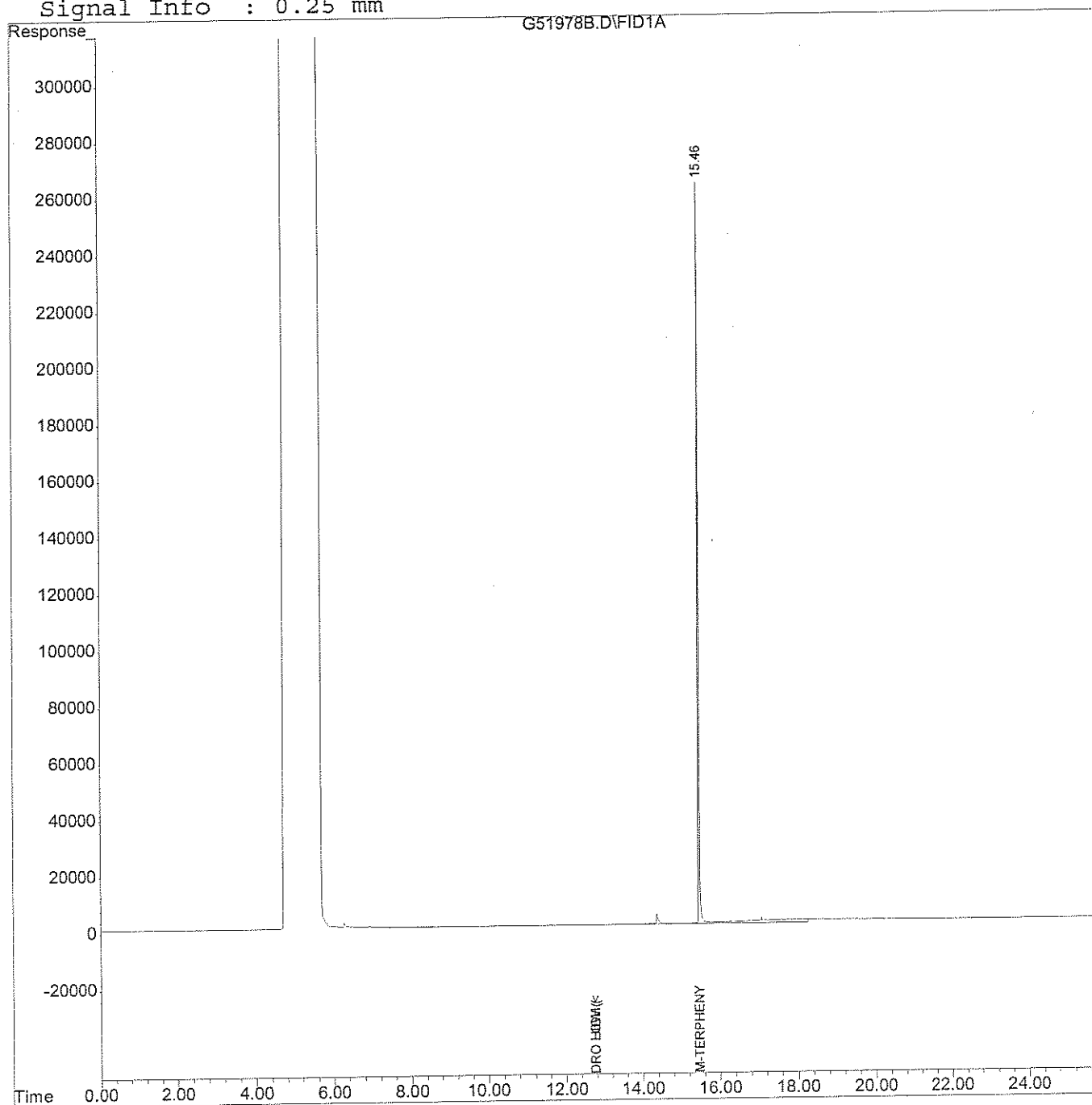
Response via : Multiple Level Calibration

DataAcq Meth : TPHEPH1.M

Volume Inj. : 1ul

Signal Phase : Rtx-5MS

Signal Info : 0.25 mm



Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

October 28, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** SME 734-08

**Project Number:**

**Field Sample ID:** TANK-01

**Lab Sample ID:** 62501-1

**Matrix:** Solid

**Percent Solid:** 22

**Dilution Factor:** 4.4

**Collection Date:** 10/16/08

**Lab Receipt Date:** 10/20/08

**Extraction Date:** 10/21/08

**Analysis Date:** 10/25/08

**ANALYTICAL RESULTS DIESEL RANGE ORGANICS**

Result	Units	Quantitation Limit
1470	mg/kg	22
<b>Surrogate Standard Recovery</b>		
m-Terphenyl	95 %	
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank		

**METHODOLOGY:** Sample analyzed according to "Maine HETL Method 4.1.25, September 6, 1995".

**COMMENTS:** Results are expressed on a dry weight basis.

Data File : D:\TPH\102408-G\G51982.D

Vial: 47

Acq On : 25 Oct 2008 16:37

Operator:

Sample : 62501-1

Inst : INST G

Misc : SOIL

Multiplr: 1.00

IntFile : AUTOINT1.E

Quant Time: Oct 27 9:22 2008 Quant Results File: D10108A.RES

Quant Method : C:\HPCHEM\1\METHODS\D10108A.M (Chemstation Integrator)

Title : DRO

Last Update : Mon Oct 20 11:05:13 2008

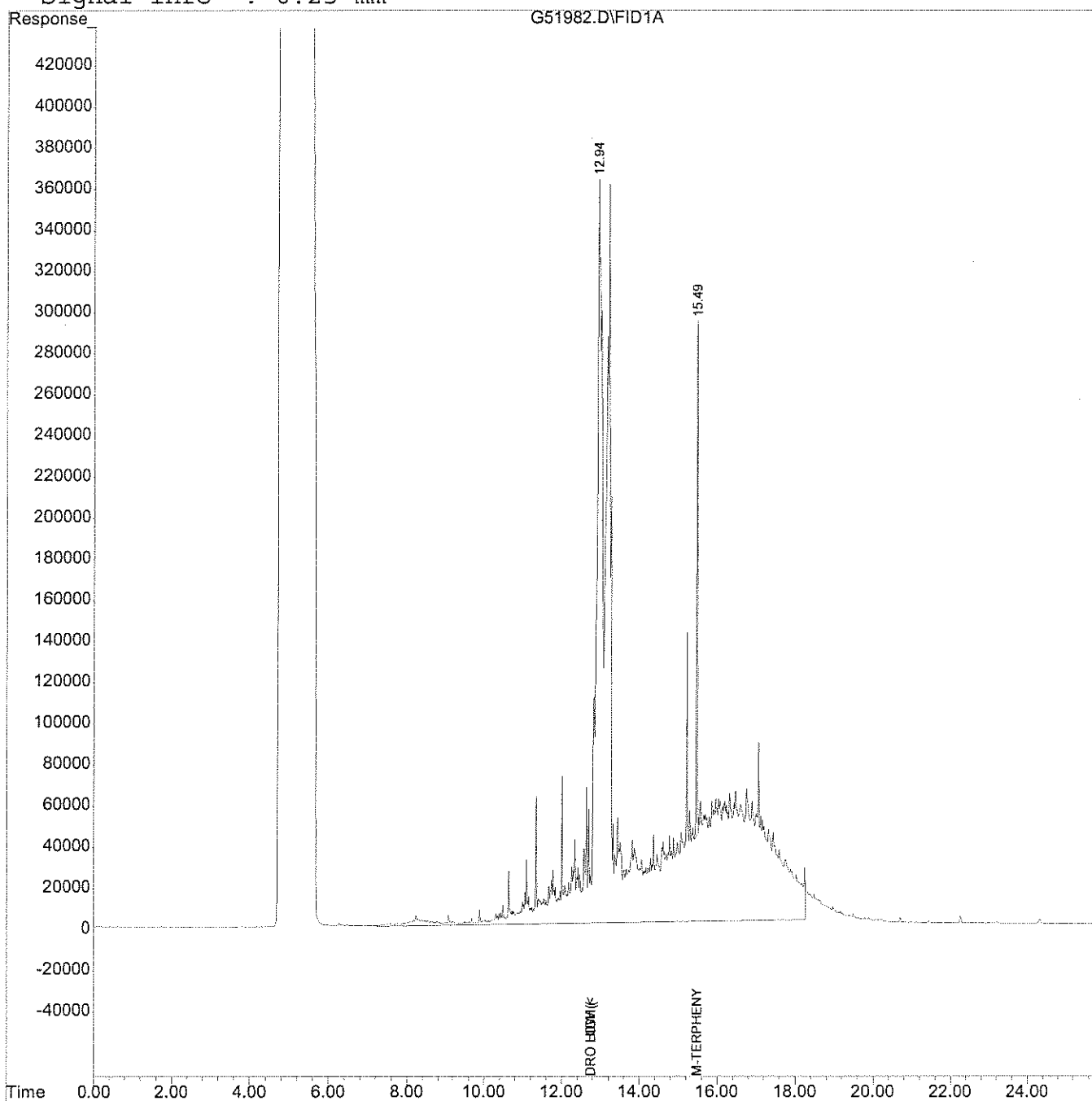
Response via : Multiple Level Calibration

DataAcq Meth : TPHEPH1.M

Volume Inj. : 1ul

Signal Phase : Rtx-5MS

Signal Info : 0.25 mm



Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

October 28, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** SME 734-08

**Project Number:**

**Field Sample ID:** Bldg 10 Cistern

**Lab Sample ID:** 62501-2  
**Matrix:** Solid  
**Percent Solid:** 27  
**Dilution Factor:** 3.7  
**Collection Date:** 10/16/08  
**Lab Receipt Date:** 10/20/08  
**Extraction Date:** 10/21/08  
**Analysis Date:** 10/25/08

**ANALYTICAL RESULTS DIESEL RANGE ORGANICS**

Result	Units	Quantitation Limit
1140	mg/kg	18
<b>Surrogate Standard Recovery</b>		
m-Terphenyl	99 %	
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank		

**METHODOLOGY:** Sample analyzed according to "Maine HETL Method 4.1.25, September 6, 1995".

**COMMENTS:** Results are expressed on a dry weight basis.



Data File : D:\TPH\102408-G\G51981.D

Vial: 46

Acq On : 25 Oct 2008 16:08

Operator:

Sample : 62501-2

Inst : INST G

Misc : SOIL

Multiplr: 1.00

IntFile : AUTOINT1.E

Quant Time: Oct 27 9:21 2008 Quant Results File: D10108A.RES

Quant Method : C:\HPCHEM\1\METHODS\D10108A.M (Chemstation Integrator)

Title : DRO

Last Update : Mon Oct 20 11:05:13 2008

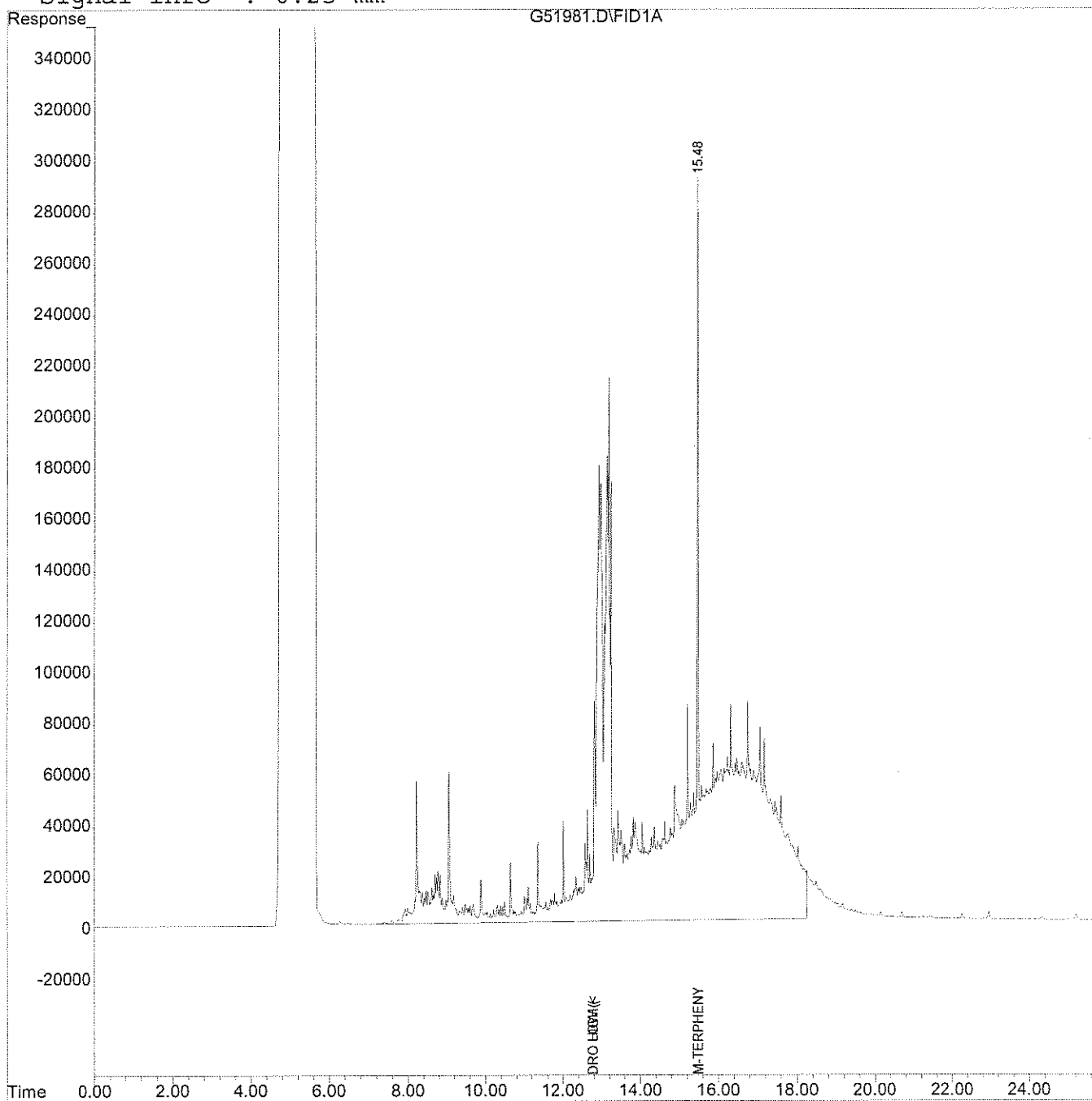
Response via : Multiple Level Calibration

DataAcq Meth : TPHEPH1.M

Volume Inj. : 1ul

Signal Phase : Rtx-5MS

Signal Info : 0.25 mm



Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

October 28, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** SME 734-08

**Project Number:**

**Field Sample ID:** Bldg 10 Cistern

**Lab Sample ID:** 62501-3

**Matrix:** Aqueous

**Percent Solid:** N/A

**Dilution Factor:** 1.0

**Collection Date:** 10/16/08

**Lab Receipt Date:** 10/20/08

**Extraction Date:** 10/22/08

**Analysis Date:** 10/25/08

**ANALYTICAL RESULTS DIESEL RANGE ORGANICS**

Result	Units	Quantitation Limit
678	µg/L	50

**Surrogate Standard Recovery**

m-Terphenyl 111 %

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

**METHODOLOGY:** Sample analyzed according to "Maine HETL Method 4.1.25, September 6, 1995".

**COMMENTS:**

DRO Report

Authorized signature

*M. L. Hall*

Data File : D:\TPH\102408-G\G51969.D

Vial: 35

Acq On : 25 Oct 2008 10:02

Operator:

Sample : 62501-3

Inst : INST G

Misc :

Multiplr: 1.00

IntFile : AUTOINT1.E

Quant Time: Oct 27 8:24 2008 Quant Results File: D10108A.RES

Quant Method : C:\HPCHEM\1\METHODS\D10108A.M (Chemstation Integrator)

Title : DRO

Last Update : Mon Oct 20 11:05:13 2008

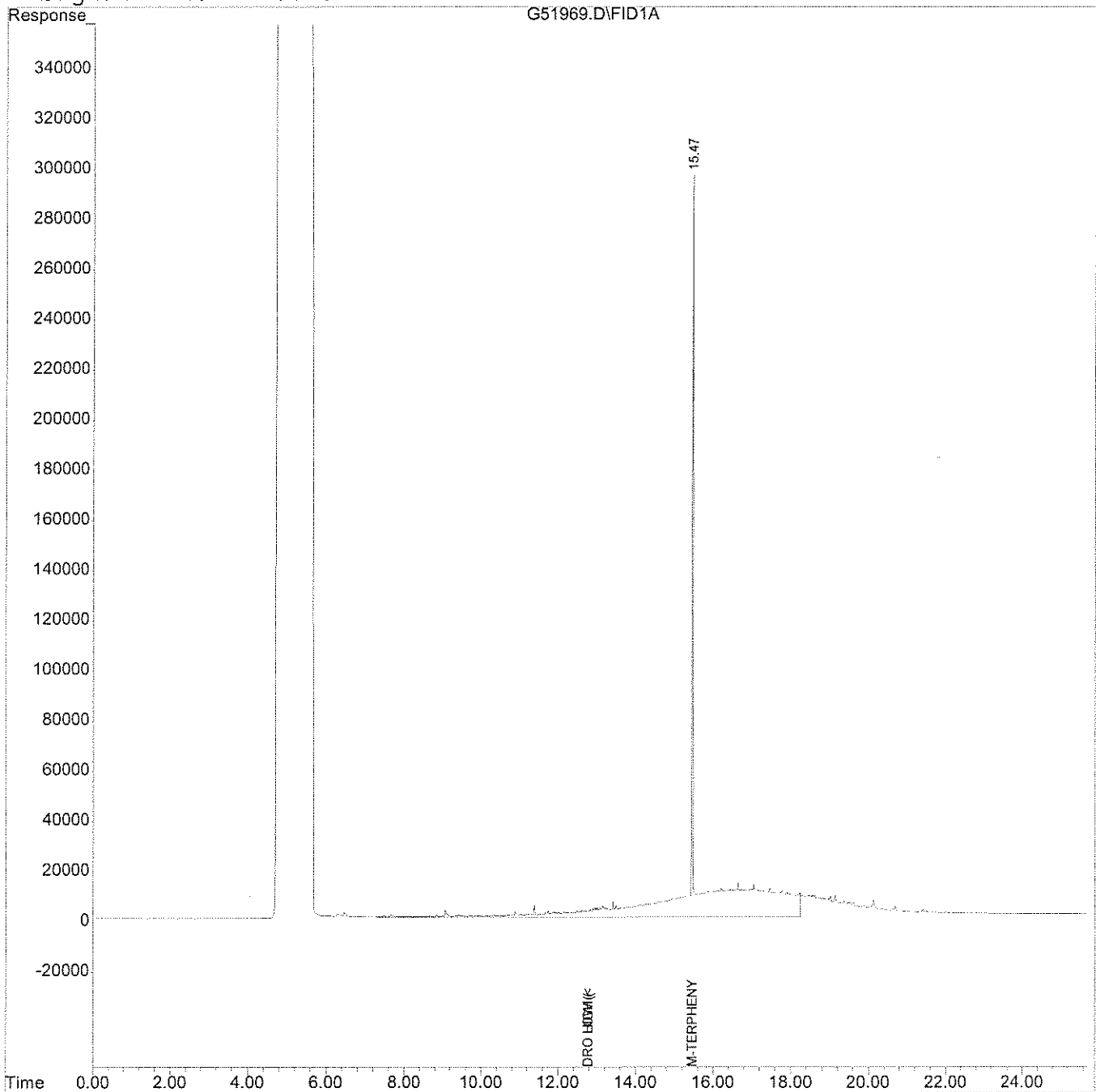
Response via : Multiple Level Calibration

DataAcq Meth : TPHEPH1.M

Volume Inj. : 1ul

Signal Phase : Rtx-5MS

Signal Info : 0.25 mm



Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

October 29, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** SME 734-08

**Project Number:**

**Field Sample ID:** Bldg 3

**Lab Sample ID:** 62501-4 REX

**Matrix:** Solid

**Percent Solid:** 64

**Dilution Factor:** 1.5

**Collection Date:** 10/16/08

**Lab Receipt Date:** 10/20/08

**Extraction Date:** 10/24/08

**Analysis Date:** 10/25/08

**ANALYTICAL RESULTS DIESEL RANGE ORGANICS**

Result	Units	Quantitation Limit
279	mg/kg	8
<b>Surrogate Standard Recovery</b>		
m-Terphenyl	74 %	
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank		

**METHODOLOGY:** Sample analyzed according to "Maine HETL Method 4.1.25, September 6, 1995".

**COMMENTS:** Results are expressed on a dry weight basis.

Data File : D:\TPH\102408-G\G51995.D

Vial: 60

Acq On : 25 Oct 2008 23:27

Operator:

Sample : 62501-4, RX

Inst : INST G

Misc : SOIL

Multiplr: 1.00

IntFile : AUTOINT1.E

Quant Time: Oct 27 9:35 2008 Quant Results File: D10108A.RES

Quant Method : C:\HPCHEM\1\METHODS\D10108A.M (Chemstation Integrator)

Title : DRO

Last Update : Mon Oct 20 11:05:13 2008

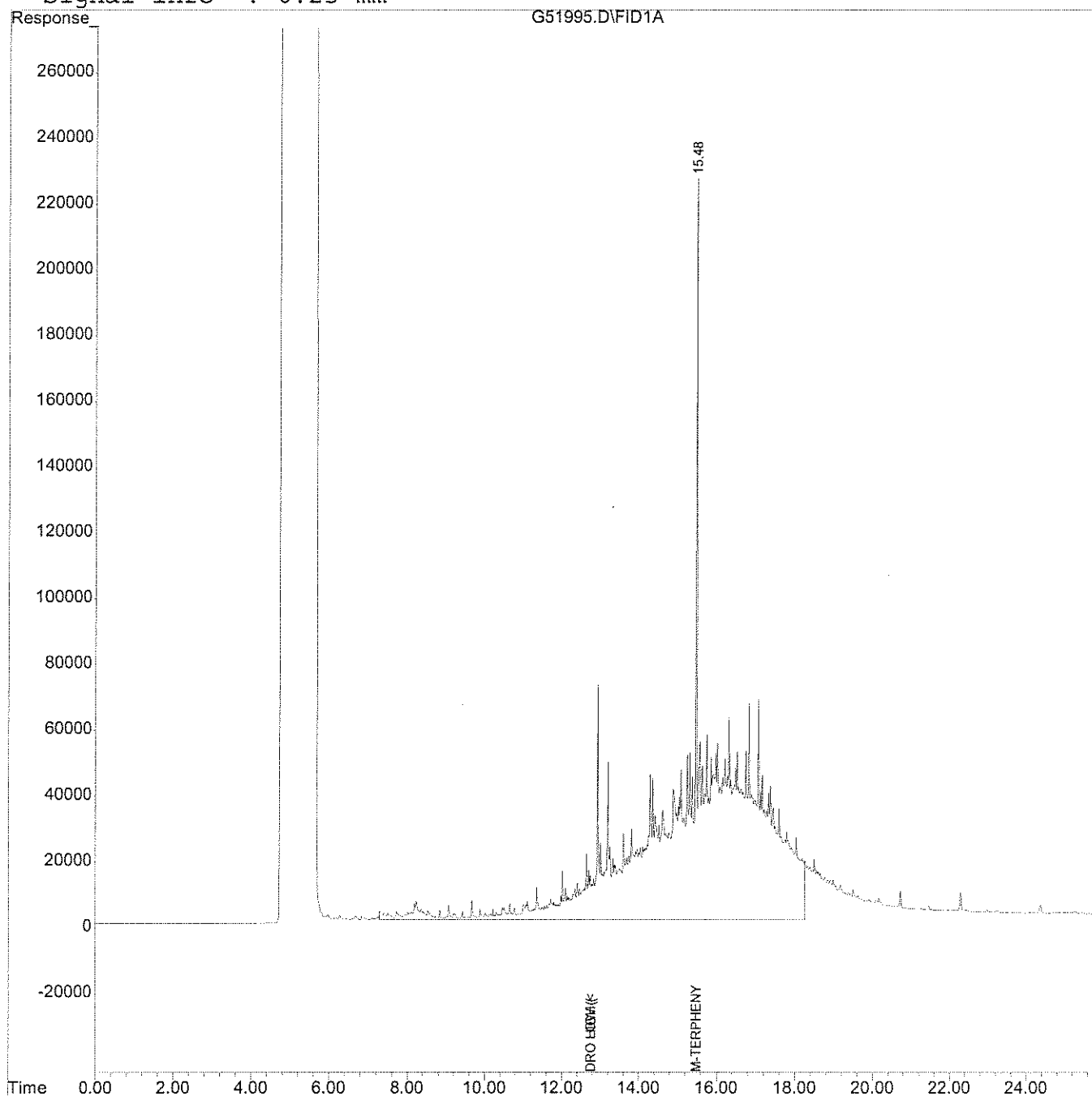
Response via : Multiple Level Calibration

DataAcq Meth : TPHEPH1.M

Volume Inj. : 1ul

Signal Phase : Rtx-5MS

Signal Info : 0.25 mm



Mr. Herb Kodis  
Maine Environmental Laboratory, Inc.  
PO Box 1107  
Yarmouth, ME 04096-1107

October 28, 2008

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** SME 734-08

**Project Number:**

**Field Sample ID:** SAND-01

**Lab Sample ID:** 62501-5

**Matrix:** Solid

**Percent Solid:** 99

**Dilution Factor:** 1.0

**Collection Date:** 10/16/08

**Lab Receipt Date:** 10/20/08

**Extraction Date:** 10/21/08

**Analysis Date:** 10/25/08

**ANALYTICAL RESULTS DIESEL RANGE ORGANICS**

Result	Units	Quantitation Limit
29	mg/kg	5

**Surrogate Standard Recovery**

m-Terphenyl 109 %

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

**METHODOLOGY:** Sample analyzed according to "Maine HETL Method 4.1.25, September 6, 1995".

**COMMENTS:** Results are expressed on a dry weight basis.

Data File : D:\TPH\102408-G\G51980.D

Vial: 45

Acq On : 25 Oct 2008 15:39

Operator:

Sample : 62501-5

Inst : INST G

Misc : SOIL

Multiplr: 1.00

IntFile : AUTOINT1.E

Quant Time: Oct 27 9:19 2008 Quant Results File: D10108A.RES

Quant Method : C:\HPCHEM\1\METHODS\D10108A.M (Chemstation Integrator)

Title : DRO

Last Update : Mon Oct 20 11:05:13 2008

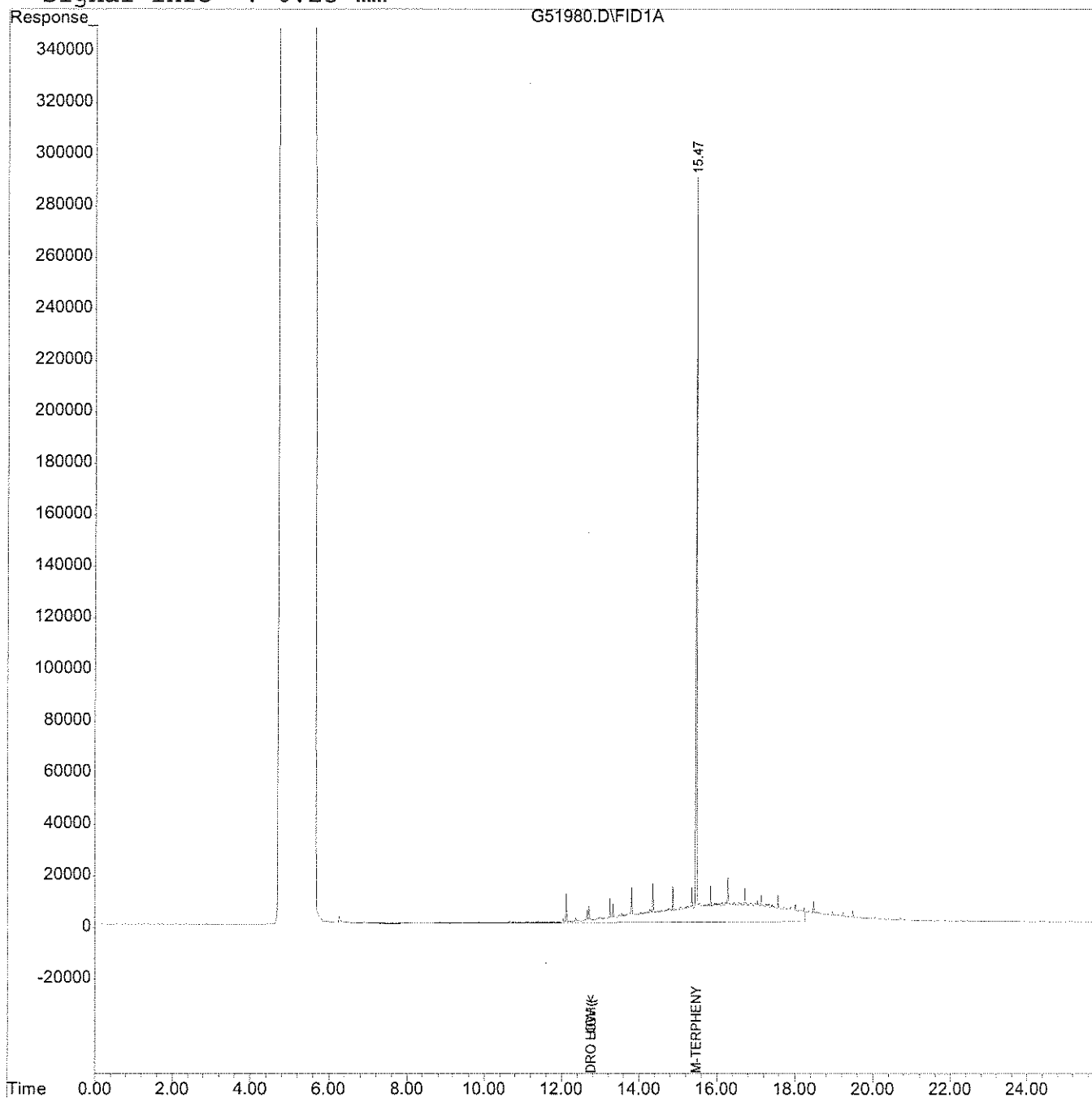
Response via : Multiple Level Calibration

DataAcq Meth : TPHEPH1.M

Volume Inj. : 1ul

Signal Phase : Rtx-5MS

Signal Info : 0.25 mm



# DRO QC FORMS



DIESEL RANGE ORGANICS AQUEOUS  
LABORATORY CONTROL/DUPLICATE  
PERCENT RECOVERY

Instrument ID: G  
GC Column: RTX-5ms  
Column ID: 0.25 mm

SDG: 62501  
Non-spiked sample: B10228DW  
Spike: L10228DW  
Spike duplicate: LD10228DW

COMPOUND	LCS SPIKE ADDED (ug/L)	LCSD SPIKE ADDED (ug/L)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
DRO LOW (<1.0)	1000	1000	60	140	20	0	1020	102		1063	106		4	
DRO HIGH (>1.0)	1000	1000	60	140	20	0	1035	103		1080	108		4	

# Column to be used to flag recovery and RPD values outside of QC limits

\* Values outside QC limits

Spike added values have been volume adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: \_\_\_\_\_  
\_\_\_\_\_

DIESEL RANGE ORGANICS AQUEOUS  
LABORATORY CONTROL/DUPLICATE  
PERCENT RECOVERY

Instrument ID: G  
GC Column: RTX-5ms  
Column ID: 0.25 mm

SDG: 62501  
Non-spiked sample: B10228DW  
Spike: L10228DW#2  
Spike duplicate: LD10228DW#2

COMPOUND	LCS SPIKE ADDED (ug/L)	LCSD SPIKE ADDED (ug/L)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
DRO LOW (<1.0)	1000	1000	60	140	20	0	878	88		809	81		8	
DRO HIGH (>1.0)	1000	1000	60	140	20	0	888	89		817	82		8	

# Column to be used to flag recovery and RPD values outside of QC limits

\* Values outside QC limits

Spike added values have been volume adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: \_\_\_\_\_  
\_\_\_\_\_

DIESEL RANGE ORGANICS SOIL  
LABORATORY CONTROL/DUPLICATE  
PERCENT RECOVERY

Instrument ID: G  
GC Column: RTX-5ms  
Column ID: 0.25 mm

SDG: 62501  
Non-spiked sample: B10218DAS, RR  
Spike: L10218DAS, RR  
Spike duplicate: LD10218DAS, RR

COMPOUND	LCS SPIKE	LCSD SPIKE	LOWER	UPPER	RPD	NON-SPIKE	SPIKE	SPIKE	SPIKE DUP		SPIKE DUP			
	ADDED (mg/kg)	ADDED (mg/kg)	LIMIT	LIMIT	LIMIT	RESULT (mg/kg)	RESULT (mg/kg)	% REC	#	RESULT (mg/kg)	% REC	#	RPD	#
DRO LOW (<1.0)	67	67	60	140	20	0	66	99		59	89		10	
DRO HIGH (>1.0)	67	67	60	140	20	0	67	100		60	90		10	

# Column to be used to flag recovery and RPD values outside of QC limits

\* Values outside QC limits

Spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: \_\_\_\_\_  
\_\_\_\_\_

DIESEL RANGE ORGANICS SOIL  
LABORATORY CONTROL  
PERCENT RECOVERY

Instrument ID: G

SDG: 62501

GC Column: RTX-5ms

Non-spiked sample: B10248DAS

Column ID: 0.25 mm

Spike: L10248DAS

COMPOUND	LCS SPIKE ADDED (mg/kg)	LOWER LIMIT	UPPER LIMIT	NON-SPIKE RESULT (mg/kg)	SPIKE RESULT (mg/kg)	SPIKE % REC	#
DRO LOW (<1.0)	67	60	140	0	67	100	
DRO HIGH (>1.0)	67	60	140	0	68	102	

# Column to be used to flag recovery and RPD values outside of QC limits

\* Values outside QC limits

Spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: \_\_\_\_\_  
\_\_\_\_\_

DIESEL RANGE ORGANICS SOIL  
MATRIX SPIKE/MATRIX SPIKE DUPLICATE  
PERCENT RECOVERY

Instrument ID: G  
GC Column: RTX-5ms  
Column ID: 0.25 mm

SDG: 62501  
Non-spiked sample: 62501-4, RX  
Spike: 62501-4, MS  
Spike duplicate: 62501-4, MSD

COMPOUND	MS SPIKE	MSD SPIKE	LOWER	UPPER	RPD	NON-SPIKE	SPIKE	SPIKE		SPIKE DUP		SPIKE DUP		RPD	
	ADDED (mg/kg)	ADDED (mg/kg)	LIMIT	LIMIT	LIMIT	RESULT (mg/kg)	RESULT (mg/kg)	% REC	#	RESULT (mg/kg)	% REC	#	#		
DRO LOW (<1.0)	103	102	60	140	20	267	341	71		605	329	*	56	*	
DRO HIGH (>1.0)	103	102	60	140	20	279	360	79		666	377	*	60	*	

# Column to be used to flag recovery and RPD values outside of QC limits

\* Values outside QC limits

Spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: \_\_\_\_\_  
\_\_\_\_\_

## CHAIN OF CUSTODIES

# MAINE ENVIRONMENTAL LABORATORY- Chain of Custody

One Main Street Yarmouth, Maine 04096-6716 (207) 846-6569 fax: (207) 846-9066  
e-mail: melab@maine.rr.com

PROJECT MANAGER

J. Cressey

COMPANY

TELEPHONE

FAX # / E-MAIL

PURCHASE ORDER # / BILL TO

ADDRESS

PROJECT NAME

SME 734-08

SAMPLER NAME

Cressey

SAMPLE IDENTIFICATION

# CONTAINERS

TYPE OF CONTAINERS

FIELD FILTRATION

YES NO

SAMPLE MATRIX

GRAB

METHOD PRESERVED

DATE

TIME

SAMPLING

DATE

TIME

SAMPLING

DATE

TIME

SAMPLING

DATE

TIME

SAMPLING

DATE

TIME

SAMPLING

DATE

TIME

SAMPLING

DATE

TIME

Analytics Report 62501 page 0095 of 96

TANK-01

"

dg 10 Cistern

"

dg 10 Cistern

"

"

3ldg 3

"

SAND-01

Trip Blank

Trip Blank

Received within hold time

Received in good condition

Temp. Blank °C 3.5°C / Frozen ice packs

Samples received preserved

RELINQUISHED BY SAMPLER:

RELINQUISHED BY:

RELINQUISHED BY:

COC-04 6/10/08

ANALYSES

LABORATORY REPORT #

Delivered by

TURNAROUND REQUEST

☒ Standard 10/29 10:00 AM

☐ Priority (SURCHARGE)

Quote # MEL3120101-35

LABORATORY IDENTIFICATION/ SUBCONTRACTOR

602501-1

2

3

4

5

6

7

VOC 8260

X

SVOC 8270

X

DRG 4.1-25

X

PH 30.10/20/08

X

COMMENTS

ME DEP EDD (American Tissue)

Level II (Brownfields)

Labels checked by CP 10/20/08

RECEIVED BY:

TIME

DATE

RECEIVED BY:

TIME

DATE

RECEIVED BY LABORATORY:

TIME

DATE

**ANALYTICS SAMPLE RECEIPT CHECKLIST**

AEL LAB#: 62501

COOLER NUMBER: \_\_\_\_\_

CLIENT: SEL

NUMBER OF COOLERS: 1

PROJECT: SME 734-08

DATE RECEIVED: 10/20/08

**A: PRELIMINARY EXAMINATION:**

DATE COOLER OPENED: 10/20/08

1. Cooler received by(initials)

JLL Date Received: 10/20/08

2. Circle one:

Hand delivered  
(If so, skip 3)

Shipped

3. Did cooler come with a shipping slip?

Y

N

3a. Enter carrier name and airbill number here: \_\_\_\_\_

4. Were custody seals on the outside of cooler?

Y

N

How many & where: \_\_\_\_\_ Seal Date: \_\_\_\_\_ Seal Name: \_\_\_\_\_

5. Did the custody seals arrive unbroken and intact upon arrival?

Y

N/A

6. COC#: \_\_\_\_\_

7. Were Custody papers filled out properly (ink, signed, etc)?

Y

N

8. Were custody papers sealed in a plastic bag?

Y

N

9. Did you sign the COC in the appropriate place?

Y

N

10. Was the project identifiable from the COC papers?

Y

N

11. Was enough ice used to chill the cooler?

Y N

Temp. of cooler:

3.5°C

**B. Log-In:** Date samples were logged in:

10/20/08

By:

JLL

12. Type of packing in cooler bubble wrap popcorn)

Y

N

13. Were all bottles sealed in separate plastic bags?

Y

N

14. Did all bottles arrive unbroken and were labels in good condition?

Y

N

15. Were all bottle labels complete(ID, Date, time, etc.)

Y

N

16. Did all bottle labels agree with custody papers?

Y

N

17. Were the correct containers used for the tests indicated:

Y

N

18. Were samples received at the correct pH?

Y

N

19. Was sufficient amount of sample sent for the tests indicated?

Y

N

20. Were bubbles absent in VOA samples?

Y

N

If NO, List sample #'s: \_\_\_\_\_

21. Laboratory labeling verified by (initials):

Date: CP 10/20/08



## **APPENDIX B**



## MEMORANDUM

TO: American Tissue Mills of Maine Site File

cc: Tom Condon, U.S. Environmental Protection Agency (EPA), On-Scene Coordinator (OSC)

FROM: John C. Burton, Weston Solutions, Inc., Superfund Technical Assessment and Response Team III (START) *JB*

DATE: 15 December 2008

RE: Color Coding and Location of Pipe Piles at the American Tissue Mills of Maine Site, 54 Maple Street, Augusta, Kennebec County, Maine. TDD No. 06-10-0001; Task No. 0248; Document Control No. R-5241.

### INTRODUCTION

This Memorandum summarizes the spray paint color coding used on various chemical lines and piping, the location of pipes left in place due to unsafe access or residue coating only, and the staging areas for removed pipe.

Chemical Line	Color
Lime Slurry	Green
Alum	Pink
Wet Resin	Blue
Kymene	Purple
Sodium Hypochlorite	Orange
Bleach Liquor	Orange
Sodium Hydroxide	Red

### REMAINING CHEMICAL LINE LOCATIONS

Chemical Line	Pipe Type	Location
Ammonia Hydroxide	Steel (4 Inch)	In Wastewater Treatment Plant Pond closest to the Control Building.
Lime Slurry	Steel	Building 13 and northwest wall of Building 14A.
Wet Resin	PVC	Southeastern wall of Building 14 and Northeastern wall of Building 14A.
ALUM	PVC (2 Inch)	Elevated height from 5,000-gallon Alum tank to Alum tank in the middle of Building 14A.

Chemical Line	Pipe Type	Location
ALUM	PVC	Southwest corner of Building 14A. The line is cut at ground level and plugged and appears to run underground to Building 6.
Bleach Liquor	PVC (4 Inch)	First Floor of Building 6 eastern wall to the basement of building 6 Concrete tank on the southwestern side.
Bleach Liquor/Sodium Hypochlorite	PVC (4 Inch)	Underneath the steam pipes parallel to the railroad tracks outside of Building 7.
Sodium Hypochlorite	PVC (2 Inch)	Basement of Building 6 from the ground level of Building 3. Ground level of Building 3 near the stairs on the north end of the Building.
IGE PAL 660	Steel	Southeast corner of Building 3 near Sodium Hydroxide Tank. The line contains material.

PVC = Polyvinyl Chloride

### **PIPE STAGING AREAS**

Building 13: Sodium Hypochlorite PVC pipe, and Lime Slurry Steel pipe elbow. (See Photograph 1).

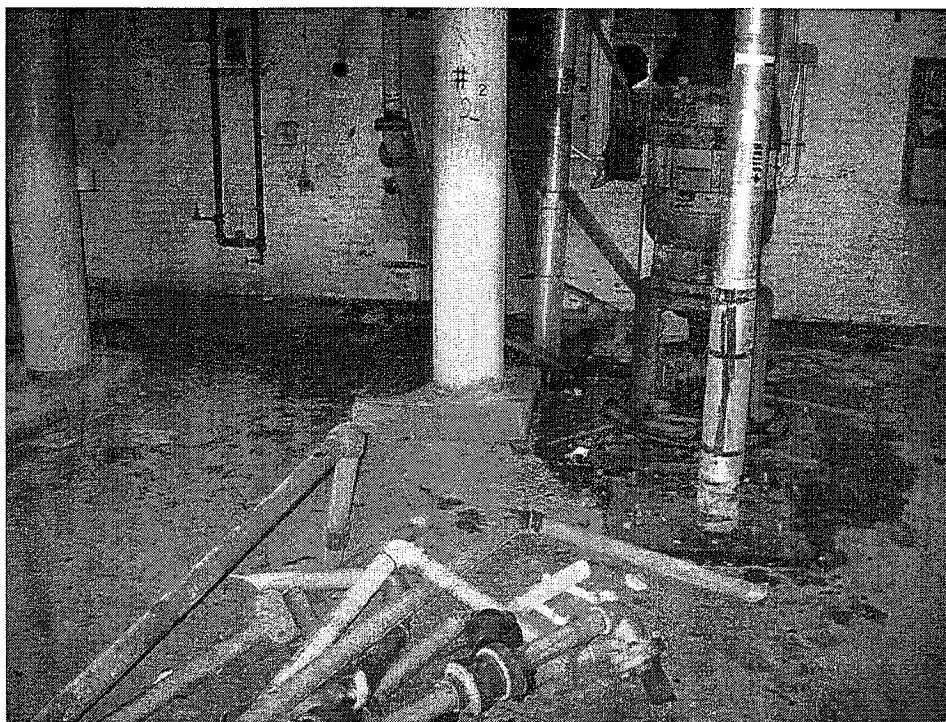
Building 14A: Wet Resin, Sodium Hypochlorite, and Bleach Liquor PVC pipes were staged near the Lime Slurry and Alum Tanks. (See Photograph 2).

Building 7: Wet Resin, Sodium Hypochlorite, Bleach Liquor, and Kymene Steel pipes and PVC pipes were staged in a garage door bay at ground level. (See Photograph 3).

Building 7: Kymene PVC pipe was staged near the Kymene tanks on the first floor. (See Photograph 4).

Building 3: Wet Resin PVC pipe was staged near the ramp on the first floor.

Building 3: Sodium Hypochlorite and Bleach Liquor PVC pipe and manifolds were staged on the ground floor near the storage tanks. (See Photograph 5).



**SCENE:** Photograph 1: Sodium Hypochlorite PVC pipe staged in Building 13.

**DATE:** 22 October 2008

**PHOTOGRAPHER:** John Burton

**TIME:** 1530 hours

**CAMERA:** Canon PowerShot A540



**SCENE:** Photograph 2: Sodium Hypochlorite PVC pipe staged in Building 14A.

**DATE:** 29 October 2008

**PHOTOGRAPHER:** John Burton

**TIME:** 1357 hours

**CAMERA:** Canon PowerShot A540



**SCENE:** Photograph 3: Wet Resin, Sodium Hypochlorite, and Bleach Liquor PVC pipe staged in Building 7.

**DATE:** 6 November 2008

**TIME:** 1511 hours

**PHOTOGRAPHER:** John Burton

**CAMERA:** Canon PowerShot A540



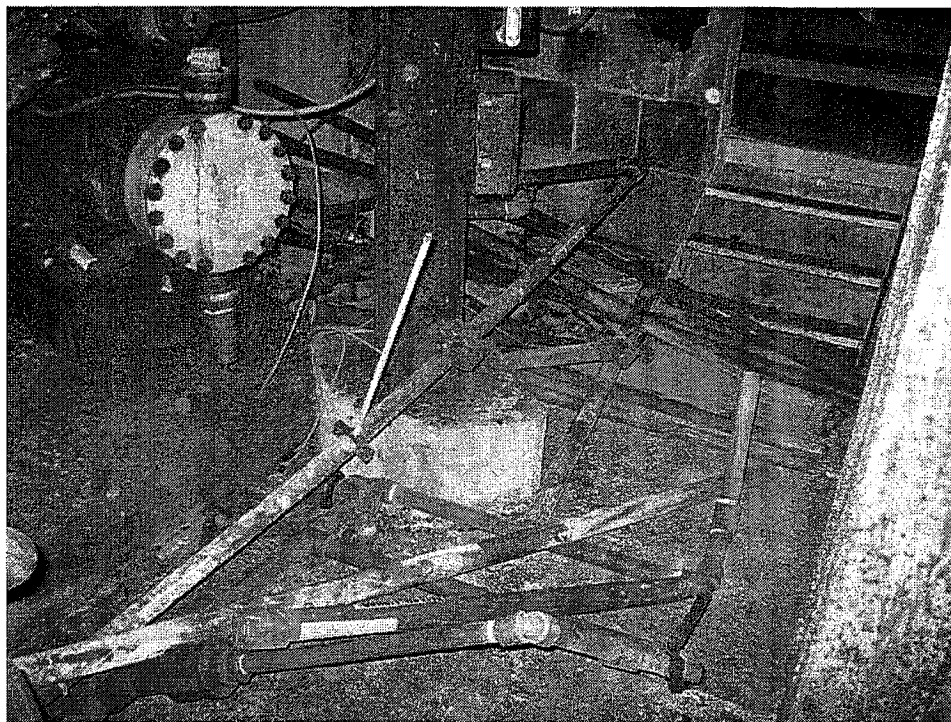
**SCENE:** Photograph 4: Kymene PVC pipe staged in the first floor of Building 7.

**DATE:** 12 November 2008

**TIME:** 1046 hours

**PHOTOGRAPHER:** John Burton

**CAMERA:** Canon PowerShot A540



**SCENE:** Photograph 5: Sodium Hypochlorite and Bleach Liquor PVC pipe staged on the ground floor of Building 3.

**DATE:** 12 November 2008

**PHOTOGRAPHER:** John Burton

**TIME:** 1025 hours

**CAMERA:** Canon PowerShot A540

## REFERENCES

- [1] USGS (U.S. Geological Survey). 1956. Augusta, Maine (7.5-minute series topographic map).
- [2] Weston Solutions, Inc. September 2006. *After Action Report for the American Tissue Mills of Maine Site August, Kennebec County, Maine 23 October 2006 through 30 August 2007*. Superfund Technical Assessment and Response Team III (START), Andover, MA.
- [3] USDA NAID (United States Department of Agriculture National Agriculture Imagery Program). 2003. 1:5,000 Color Digital Orthophoto Imagery, RE: Image Number 1f43774910me19. Available from <http://165.221.201.14/NAIP.html>. Internet accessed 11 October 2006.
- [4] Weston Solutions, Inc. July 2005. Standard Operating Procedure for Chlor-N-Oil® 50 PCB Screening Test Kit, SOP No. WSI/S3-012, Superfund Technical Assessment and Response Team III (START), Wilmington, MA.
- [5] Haztech Systems,™ Inc. June 2002. HazCat® Chemical Identification System Manual Version 1.2.

## Attachment A

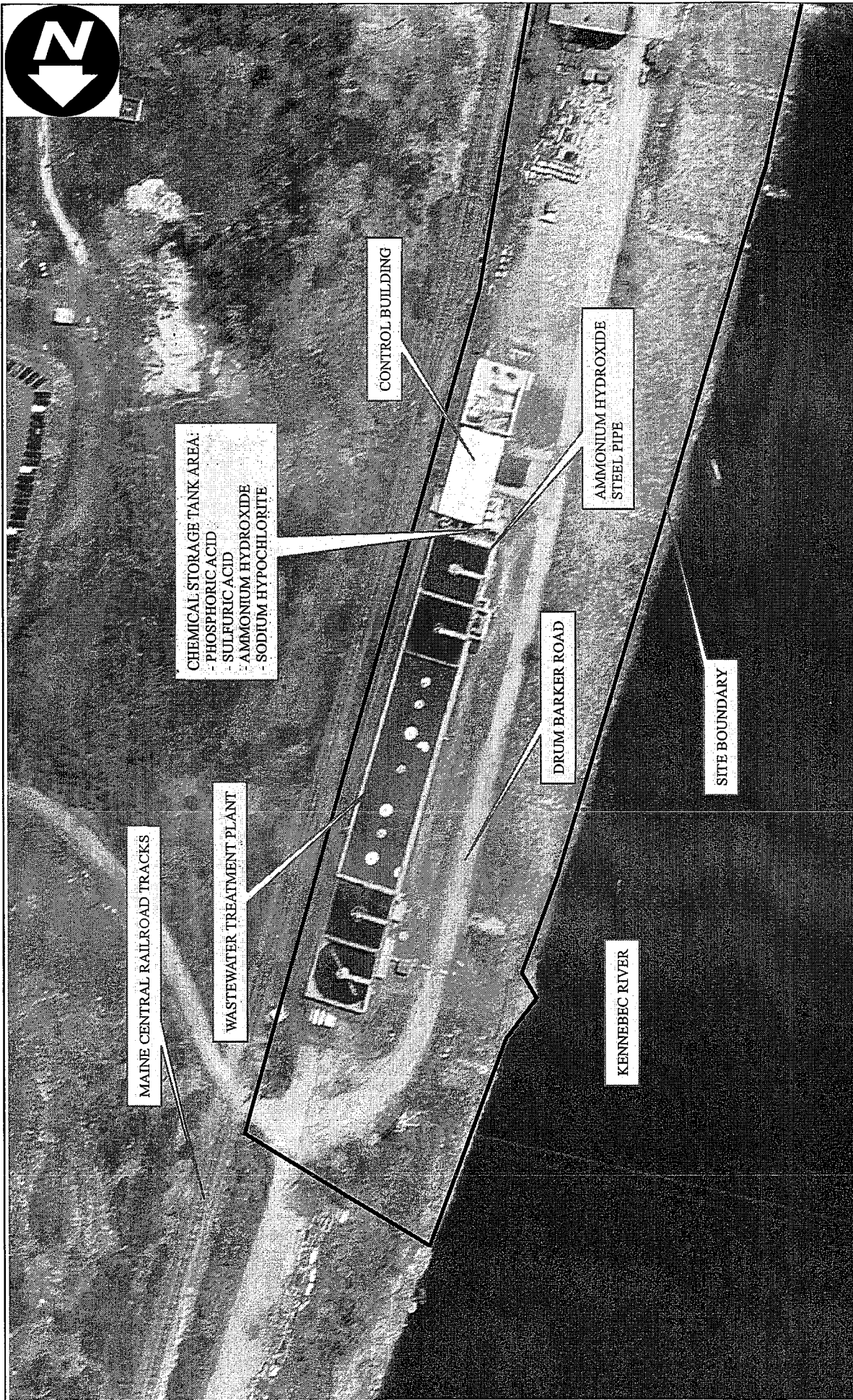
### Figures

Site Diagram - Northern Portion (Figure 3)

Site Diagram - Central Portion (Figure 4)

Site Diagram - Southern Portion (Figure 5)





BASE MAP IS A PORTION OF THE FOLLOWING  
2003 NATIONAL AGRICULTURAL IMAGERY  
PROGRAM (NAIP) IMAGERY:  
AUGUSTA, MAINE

QUADRANGLE LOCATION

0 55 110 220 330 440 Feet

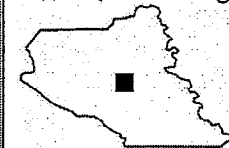
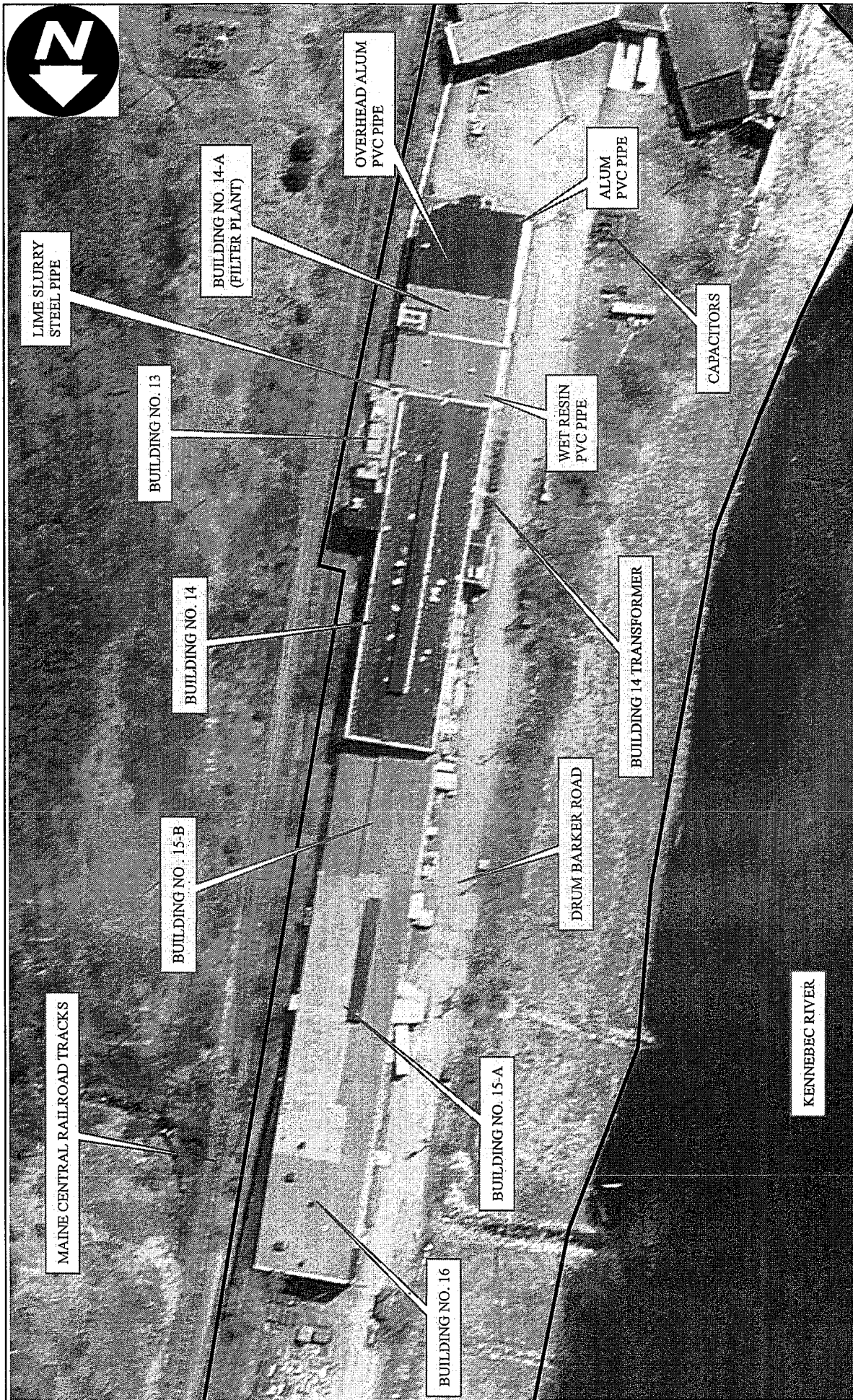
**SITE DIAGRAM**  
**NORTHERN PORTION**

**AMERICAN TISSUE MILLS OF MAINE**  
**54 MAPLE STREET**  
**AUGUSTA, MAINE**

**WESTON SOLUTIONS**  
Restoring Resource Efficiency

REGION I SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

TDD NUMBER: 06-10-0001	CREATED BY: G. HORNOK	CREATED ON: 3 DECEMBER 2008
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QUADRANGLE LOCATION



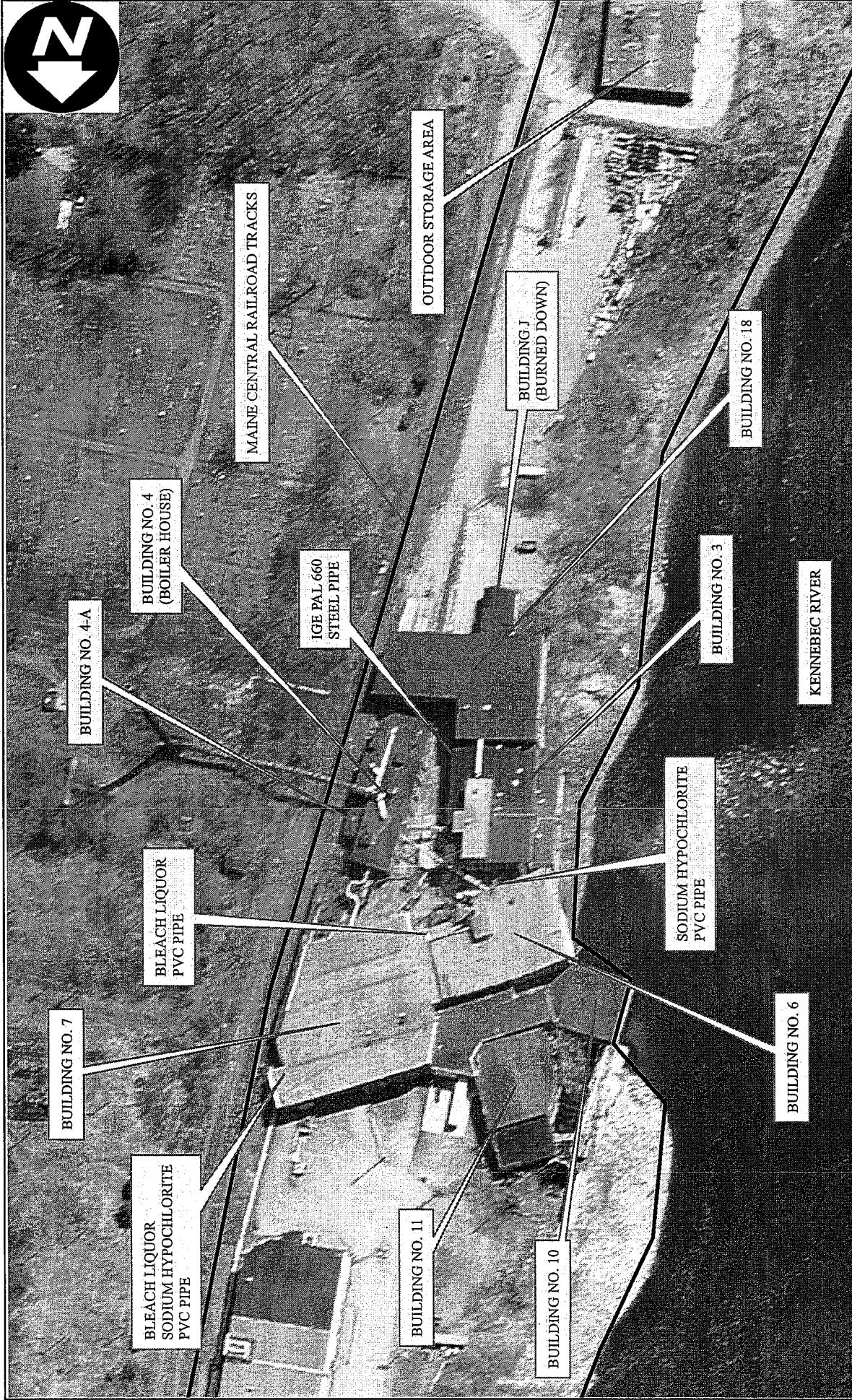
**SITE DIAGRAM**  
**CENTRAL PORTION**

AMERICAN TISSUE MILLS OF MAINE  
54 MAPLE STREET  
AUGUSTA, MAINE

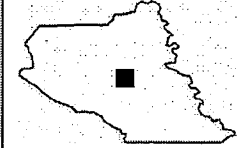


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06-10-0001	G. HORNOK	3 DECEMBER 2008
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E:\ME_GIS\AUGUSTA TISSUE\FIGURE 4.MXD		





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AUGUSTA, MAINE



QUADRANGLE LOCATION



### SITE DIAGRAM SOUTHERN PORTION

AMERICAN TISSUE MILLS OF MAINE  
54 MAPLE STREET  
AUGUSTA, MAINE



REGION I SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

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CREATED BY: G. HORNOK  
CREATED ON: 3 DECEMBER 2008

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E:\ME\_GISAUGUSTA TISSUE\FIGURE 5.MXD

FIGURE 5